Table 6

The burden of 1980 net oil imports and interest payments on total external debt for selected countries [a]

as % of 1980 exports of goods and services (including private transfers, where positive)

				Effect of a change of	
	Net oil imports	Interest payments	Total	$5 per barrel in oil prices	Five percentage points in interest rates
12 non-oil LDCs	26.4	13.5	39.9	4.5	7.5
Turkey	59.7	26.1	85.8	10.0	17.0
Brazil	41.1	30.0	71.1	7.0	13.5
Philippines	38.8	11.6	50.4	6.5	8.5
Thailand	31.6	6.4	38.0	5.0	5.5
India	33.6	4.2	37.8	5.5	9.0
Korea	25.5	9.5	35.0	7.0	5.5
Chile	15.2	18.1	33.3	2.0	9.5
11 smaller non-oil industrial countries	19.1	6.2	25.3	3.0	4.0
Spain	28.7	7.0	35.7	4.5	3.0
Yugoslavia	25.5	8.5	34.0	4.0	6.0
Portugal	22.7	9.3	32.0	3.5	5.0
New Zealand	22.0	8.6	30.6	3.5	7.0
Denmark	20.4	9.4	29.8	3.5	6.0
Finland	22.5	6.6	29.1	3.5	4.5

a country coverage is the same as in Table 4

est payments on external debt in 1980 as a percent of exports of goods and services for two of the groups of major borrowers. To illustrate that changes in oil prices and interest rates can have a significant impact on these countries' external payments positions and financing requirements, Table 6 shows the effects of a $5-per-barrel change in oil prices and of a five-percentage-point change in the effective interest rate on external debt.

The outlook for bank lending

While the implied average annual rates of increase in bank credit exposure to two out of the three groups of countries would be similar to those registered in the past four years, the banks may not be able to sustain this pace of credit expansion. There has already been a marked slackening in the pace of new Euro-currency credits arranged for developing countries — only $4.5 billion during the first quarter of this year versus $9.6 billion a year earlier.

The rapid expansion of banks' international lending has contributed to a growth in their total assets that has exceeded the growth in many banks' capital, thereby contributing to a deterioration in their capital/asset ratios. Moreover, the rate of growth of banks' international lending, including their lending to these three groups of countries, has exceeded the growth of most banks' total assets, thereby resulting in an increase in the element of country risk in bank portfolios. Continued growth in banks' international credit exposure at rates similar to the recent past would tend to further accentuate these trends, a development which may be unacceptable to both bank managements and supervisory officials.

The increase in portfolio concentration in the past, of course, has applied to banks' total international loans in relation to banks' total assets and not just to banks' loans to the three groups of borrowers. In fact, in the past four years the rate of growth of banks' claims on these particular groups of borrowers has not been out of line with the rate of expansion of banks' total international lending.

Problems arising from concentration of country risk could be alleviated somewhat, but would not be removed, by improved lending margins and resulting increases in the growth of banks' earnings. Rapid growth of international lending could take place without erosion of bank capital/asset ratios in the context of slack domestic loan demand. This, however, would increase country credit risk concentration.

Two other issues will heavily influence the attitudes of banks toward international lending, including refinancing of maturing obligations. The first is the contribution of official international lending institutions and OPEC members to the recycling process, particularly in 1981-82 when the OPEC surplus still will be very large and the financing needs of the borrowing countries will be particularly heavy. The second issue is whether the major industrial countries and the principal borrowing nations pursue policies adequate to achieve satisfactory payments adjustment.

The need for increased official lending

Both the International Monetary Fund and the World Bank could play a somewhat more significant balance-of-payments financing role than in the past. While the Fund has some liquidity, additional resources would have to be marshalled for it to assist in recycling in an important way. In relation to the total member borrowing potential from the Fund and to balance-of-payments financing needs, the available liquid resources of the Fund are relatively small: about $10 billion in the form of holdings of lendable currencies and another $10 billion from the Supplementary Financing Facility (commonly known as the Witteveen Facility).[1] More than half of this facility may well be committed if current negotiations for drawings are completed.

The natural way for the Fund to enhance its role in recycling would entail *extending* and *expanding* this facility, which is now scheduled to be reviewed by the executive board no later than February 1981 and possibly earlier, pending ratification of the latest round of quota increases. If extended, additional funding beyond the initial $10 billion would have to be obtained at market-related rates so that interest rates charged borrowers would also be raised. It is essential, therefore, that the lending maturities be stretched out further to lessen the impact of higher interest rates and that lending formulae continue to be applied flexibly in providing a multiple of their quotas to countries with exceptional needs. It is also important, however, to preserve the facility's conditionality provisions since the purpose of IMF financing is to provide temporary assistance while countries embark on adjustment programs.

The World Bank is currently considering a number of quickly disbursable "structural-adjustment" program loans, as distinct from project loans, which require as long as six or seven years to disburse. At present, specific program loans totaling almost $500 million are being considered for Turkey, the Philippines, and Kenya. These loans must fit within a country's overall structural adjustment plan, whereby the country agrees to take policy measures designed to ensure a reduction in its current account deficit as a percent of GDP. The World Bank's program loans thus incorporate an element of conditionality, although it is not identical to that employed by the Fund in its standby arrangements. While these structural adjustment loans would be no more than a reallocation of the World Bank's existing resources, they nevertheless provide a more flexible, albeit modest, means of assisting countries that face longer-term balance-of-payments adjustment problems.

There is also need for increased bilateral assistance. Last year, bilateral official development assistance to the non-OPEC LDCs is estimated to have totaled about $13 billion, or roughly 25% of their combined current account deficit before transfers. It is to be expected that the bulk of official development assistance will continue to be channeled to the poorest developing countries, and only to a very limited extent to the major borrowing countries.

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[1] The $7½ billion available under the General Arrangements to Borrow (GAB) is restricted to GAB participating countries, namely, the major industrial countries.

Among official lending sources, the Fund probably is the only institution that can fairly quickly provide additional, large-scale balance-of-payments assistance to the major borrowing countries through direct borrowings from the surplus countries. After the first oil price shock such borrowing took the form of two IMF Oil Facilities, totaling $8 billion. These facilities have now expired and drawings from them are being repaid. In view of the similarity of the current situation with that of the mid-1970s, it would be desirable for OPEC surplus countries to funnel significant amounts either through the Fund's Special Financing Facility or through a new oil facility.

The need for balanced adjustment

Even with some expansion of official lending, the bulk of the financing of the deficits will still have to be done by the credit markets. For the markets to continue to play their important role, there will have to be (as in the mid-1970s) the prospect of adequate adjustment to the new international payments imbalance. Therefore, a policy strategy has to emerge that will assure a significant narrowing of this imbalance. The desired strategy would consist of three elements: continued willingness of OPEC members to expand the spending of their oil revenues, stronger energy policies in oil importing countries to permit their economic growth to resume without adding to the demand for OPEC oil, and readiness on the part of the major industrial countries to run large current account deficits and thus share the burden of the OPEC surplus.

Despite the current pessimism, the OPEC surplus could be reduced substantially beyond 1981. True, the exceptionally high import growth rates of the mid-1970s are not likely to be repeated, if only because OPEC is now starting from a much higher level of expenditure than the last time: more than $150 billion in goods and services imports last year versus only $30 billion in 1973. The reassessment of development plans that has recently been taking place in most OPEC countries and the realization of the adverse social and inflationary effects of too rapid development are also likely to contain the growth rate of spending. Nevertheless, pressures to spend their rising oil revenues are likely to continue, given the projects already underway, the need to spread the wealth, and the wish of most of them to diversify their economies and develop viable non-oil sectors for the period when the oil runs out. Thus, an *average* rate of growth in OPEC import volume on the order of 8%-10% per annum would seem plausible. Such a growth rate would go a long way toward reducing the present OPEC imbalance, but it will not be sufficient if oil prices keep rising rapidly in real terms.

A significant decline in the OPEC surplus, even in a stable political environment, will also require energy adjustments on the part of the industrial countries. The economic recovery of 1976 brought about an increase in industrial countries' oil consumption and imports, and it was only because of the steady rise in non-OPEC production that demand for OPEC oil remained fairly flat and oil prices continued to decline in real terms. This time, similar increases in oil supplies can no longer be assumed. The annual additions to non-OPEC supply are likely to be progressively smaller during 1981-85, while the willingness of

OPEC members to meet incremental demand for their oil is even less now than it was during the 1970s. Statements on future production policies and growing oil consumption in OPEC countries suggest that OPEC oil exports may not again exceed the peak of 1979.

In the future macroeconomic policies of industrial countries will have to be tied more consciously with energy policies to contain demand for oil imports. The challenge is to achieve a structural change in the relationship of economic growth to oil import demand. Since the development of new oil or alternative energy sources can make little contribution in the next five years, whatever their longer-run benefit, it becomes increasingly clear that conservation provides the only feasible near-term relief. While all industrial as well as developing countries can make progress in this area, the major source of future improvement should be the United States, where, with the exception of the industrial sector, relatively little has been done until recently.

Conservation by government regulation can be helpful, but it places a severe burden on administrative competence. Conservation on the scale needed requires strong economic incentives, and realistic energy pricing policies in oil-importing countries should be the main means of fostering such conservation.

Industrial countries have been far from steadfast or consistent in recent years in this respect. According to a recent IMF study, most countries have failed to increase taxes on gasoline during the past decade in proportion to the increase in crude oil costs. As a result, even when higher oil import prices were fully passed on to consumers on a dollar-for-dollar basis the percentage rise in final prices has been considerably less than that in oil import costs. This is particularly the case where the tax component of final prices was originally high and the level of the tax has remained unchanged. Indeed, in some countries the failure to raise gasoline taxes led to actual declines in real final prices to consumers during most of the past decade.

A reversal of past gasoline pricing practices to a policy of steady real annual increases would be of particular significance in the United States. Gasoline use represents 40% of total U.S. oil consumption compared to less than half that level in most other industrial countries. Indeed, it accounts for nearly 14% of the total oil consumed by the non-Communist world outside OPEC. In addition to higher gasoline prices, fiscal incentives will also be required in order to accelerate the shift to more fuel-efficient cars. While existing legislation provides that by 1985 *new* cars should average 27½ miles per gallon, compared to 20 mpg for this year's models, the average for all cars on the road would remain much lower. Currently, this last average is less than 15 mpg for the more than 115 million cars and light trucks in the United States. Improvement in that rate by 1 mpg could save some 400,000-450,000 bpd. If it were possible to replace the existing U.S. car stock at once by fuel-efficient vehicles averaging 40 mpg, the savings would amount to over 4 million bpd, or more than 50% of 1979 U.S. net oil imports.

Despite the benefits, there are difficulties in raising energy taxes, or even in achieving full pass-through of world oil prices to the consumer. A major obstacle to an aggressive increase in final consumer energy prices is the apparent conflict with anti-inflation policy. In most countries higher consumer or industrial oil prices are eventually reflected in cost-of-living indices and, through various linkages, in wages and benefits. A balanced approach to achieving higher *relative* prices to energy users should therefore trade off higher taxes on oil for reductions in other *indirect* taxes, notably consumer sales taxes and taxes on business in general, to neutralize the effect on the cost-of-living indices.

Since the United States has no federal value-added or general sales tax, a well-designed trade-off for higher gasoline taxes requires the cooperation of state authorities. These political difficulties notwithstanding, failure of government initiative in this direction could have serious consequences. The Carter administration's newly announced fee on imported oil clearly does not represent a trade-off among indirect taxes. If conservation cannot be effected by choice, whether through regulation or taxation, the alternative is likely to be curtailment of oil demand through successive OPEC oil price explosions, sluggish economic growth, and even worse inflation.

Reducing the OPEC surplus over the next few years by itself is not sufficient to ensure the confidence of the credit markets. Progress is also needed to secure a balanced distribution of the corresponding deficit among the oil importing countries, avoiding the mistakes of the post-1973 period. This time, the major borrowing countries, especially the non-oil LDCs, cannot escape some lowering of their growth rates, even assuming continued progress in economizing imports.

Moreover, the industrial countries must recognize the dangers of competitive restriction of domestic activity, whose major effect is to shuffle payments deficits from one oil-importing country to another. While large OPEC surpluses persist, the current-account deficit strain on oil-importing countries should be assumed by the world's strongest economies such as the United States, Germany, Japan, France, and Switzerland. It is no longer realistic to expect the United States to shoulder a disproportionate share of the deficit counterpart to the OPEC surplus. That situation was viable for a time in 1977, but its persistence contributed significantly to the 1978 dollar crisis. Exchange markets would be even less tolerant this time of such a maldistribution of current account balances.

Complicating the prospects for sustainable and balanced adjustment of industrial-country payments positions is the placement of the OPEC financial surplus. The priority today should be to channel this more evenly into Germany, Japan, and other oil importing countries to better assure the financing of appropriate current account deficits. Official action should not encourage disproportionate investment of the OPEC surplus in the United States. Unhappily, this is exactly what a successful IMF Substitution Account would do. It is envisaged that the account's assets would be held in U.S. government obligations, but this would merely aggravate the burden on U.S. intermediaries to onlend funds to deficit countries. In the context of present concerns for the smooth working of the adjustment process, the IMF substitution scheme is misdirected.

A more encouraging approach is now evident in the evolving attitudes of the new reserve countries — such as Germany, Japan, and Switzerland — toward the reserve currency function that market developments have thrust upon them. Negativism on the part of the central banks and governments has receded. Some first steps have been taken in recent weeks to strengthen their currencies' reserve function through offerings of official securities and acceptance by the central banks of de-

Table 7

Outlook for the OPEC current account in 1981-85

based on alternative assumptions

	1981	*1982*	*1933*	*1984*	*1985*
I Base case					
OPEC terms of trade, % change	0.0	1.4	2.0	5.0	5.0
OPEC import prices, % change	10.0	8.5	8.0	9.0	9.0
OECD economic growth, % change	1.5	2.0	3.0	3.0	3.0
OPEC export volume, mm bpd	26.2	26.5	26.7	27.0	27.2
OPEC import volume, % change	14.0	12.0	9.0	8.0	8.0
in billions of dollars:					
Oil revenues	308	340	377	438	514
Imports of goods and services	251	306	360	424	499
Current account after official transfers	80	59	44	44	48
Net external assets, year-end	407	466	510	554	602
II Optimistic case					
OPEC terms of trade, % change	0.0	0.0	0.0	0.0	0.0
OPEC import prices, % change	10.0	8.5	8.0	7.0	7.0
OECD economic growth, % change	2.0	4.0	3.5	3.5	3.5
OPEC export volume, mm bpd	26.2	25.7	25.7	25.4	25.2
OPEC import volume, % change	15.0	13.0	10.0	5.0	—1.0
in billions of dollars:					
Oil revenues	308	328	356	381	396
Imports of goods and services	254	311	369	415	435
Current account after official transfers	77	43	17	0	—2
Net external assets, year-end	404	447	464	464	462

posits from OPEC and other official investors. These instruments provide a flexible tool for stabilizing exchange markets and provide suitable opportunities for diversification of OPEC portfolios, also demonstrating in practical terms that the world's multiple-currency reserve system is more manageable than some academic and official analyses have implied.

Summing up

The payments imbalances facing the major countries in the next several years pose a challenge to the capacity of international markets to deliver the necessary new financing. The preponderant role of commercial banks in the recycling effort entails continued rapid growth in their international portfolios. Because adjustment to the second oil shock begins with international indebtedness already high by traditional standards, the financing of the new imbalances — and the refinancing of existing obligations as they mature — implies considerable risk to the world's financial system.

To lessen this risk, more balanced and speedy balance-of-payments adjustment should occur this time than was the case following the 1973 oil shock. This will undoubtedly require some short-term sacrifice of economic growth objectives, in both industrial and developing countries, for the sake of curbing inflation and making a determined start on measures of structural adjustment. Without such adjustment there is little hope of maintaining financial market confidence.

Tangible contributions are required of all the principal actors: from the developing countries, the recognition that sustainable growth in the early 1980s may be less than desired and should be of a less import-intensive character than hitherto, especially in energy use; from the OPEC countries, a greater willingness to accept portfolio risk, vigorous but carefully considered development programs, and a sense of international responsibility in setting oil production targets; from the industrial countries, a strong commitment to energy conservation and the avoidance of shortsighted shuffling of current account deficits among themselves or at the expense of the developing countries; from the international agencies, a greater flexibility in lending procedures and purposes; from the commercial banks and the supervisory authorities, a reasoned approach to questions of country risk.

First readings of the international response to last year's oil shock are modestly encouraging. A number of developing countries have moved swiftly to contain current account deficits within bounds that can be reasonably financed. OPEC import spending appears to be on the rise again. The industrial countries, particularly the United States, show clearer awareness of the energy problem and are beginning to take more practical conservation measures. Monetary policies have shifted to a more forceful anti-inflationary stance. Germany and other major countries are adopting a more responsible role in sharing the OECD current account deficit, which should limit exchange market tensions and improve financial market confidence. These favorable developments underlie the outlook presented in Table 1 for the pattern of world payments imbalances through 1981 and in Table 5 for external financing needs of the major borrowing countries.

The developments portrayed in these tables may, indeed, understate the scope for improvement. More determined conservation in OECD countries in the next five years could well lead to a 4 million bpd production in demand for OPEC oil by 1985 from the 1979 level. This would contribute to stabilizing the price of oil in real terms. If OPEC countries were also to step up their import volume growth to 13% or so annually, the OPEC surplus could be eliminated by the mid-1980s (see Table 7). These desirable developments would enable industrial countries to generate more rapid economic growth while making greater progress in curtailing inflation. On an optimistic projection of this kind, the current account deficit of the major borrowing countries would decline considerably in real terms by 1985. Confidence in a favorable medium-term outlook would greatly facilitate smooth financing, especially beyond 1981.

It cannot be emphasized too strongly that the road to an orderly world adjustment to the recent oil shock lies primarily through sound policies on the part of the industrial countries. The errors of the post-1973 experience must be avoided. Thus, a downturn in OECD economic activity now of the magnitude sustained in the 1974-75 recession would burden LDC current accounts by the equivalent of an additional $25-per-barrel increase in the price of oil. Furthermore, neglect of energy conservation and any return of complacency in industrial countries risks another OPEC price explosion and accelerating inflation in the years ahead. The time is ripe to set the world on a better course. Understandably the election schedule over the coming year in several of the major countries tempts policymakers to procrastinate. This, the world cannot afford.

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Information herein is from sources considered to be reliable but is furnished without responsibility on the part of Morgan Guaranty Trust Company.

Effective exchange rates

Index numbers, March 1973=100. The index of the effective exchange rate for a currency is a measure of that currency's trade-weighted average appreciation or depreciation vis-à-vis the currencies of 15 other major countries. The exchange rates used in the construction of this index are the averages of daily noon spot exchange rates in New York for months and for weeks ending on dates shown. The trade weights used are based on 1976 bilateral trade in manufactures.

	United States	Canada	Japan	United Kingdom	Germany	France	Italy	Belgium	Netherlands	Switzerland	Austria	Denmark	Norway	Sweden	Australia	Spain
pre-June 1970 parities	118.5	94.9	79.3	116.2	91.6	97.5	110.9	95.9	98.2	88.3	97.8	97.9	98.1	102.2	92.2	98.4
Smithsonian central rates	107.0	101.3	88.7	116.0	95.4	96.1	108.3	97.0	99.1	91.6	98.0	96.0	96.3	100.5	91.7	98.1
1979																
March	97.9	83.8	122.7	70.4	135.5	90.2	54.9	111.4	119.9	166.5	117.2	102.4	102.1	87.1	73.8	74.9
April	98.3	86.0	117.4	72.5	134.5	89.8	55.5	110.5	118.9	164.8	116.5	101.7	102.2	87.5	74.0	76.8
May	99.0	85.4	116.7	72.5	134.9	89.3	55.4	109.6	118.3	165.1	116.3	100.2	102.0	88.2	74.2	79.7
June	99.1	84.1	116.1	73.9	135.5	89.4	55.2	109.6	117.6	166.3	116.3	98.2	101.7	88.5	74.2	79.0
July	97.3	84.2	115.7	77.3	136.0	89.1	55.4	110.1	117.3	166.3	116.7	98.6	100.6	88.2	73.7	76.9
August	97.7	83.8	115.1	76.6	135.9	89.1	55.6	110.1	117.6	165.8	117.3	98.3	101.2	88.5	74.0	77.2
September	97.6	84.2	112.3	74.5	137.1	89.4	55.4	110.5	118.2	168.8	119.4	99.1	101.6	88.3	74.3	76.6
October	98.9	83.7	108.8	73.0	138.3	89.9	54.6	110.9	118.0	167.7	120.5	98.8	102.8	88.5	74.6	77.0
November	100.2	83.6	102.4	72.7	139.7	90.7	54.4	110.8	118.3	166.0	121.3	98.5	102.0	88.3	74.7	76.7
December	98.7	84.0	103.5	73.9	140.2	91.2	54.4	110.4	119.4	167.5	121.5	94.6	101.3	88.1	74.2	75.3
1980																
January	97.9	84.3	104.2	75.6	139.9	91.0	54.4	110.4	119.4	166.6	121.6	93.5	101.8	87.9	73.9	75.2
February	98.4	85.0	101.7	77.2	139.3	90.6	54.7	110.1	119.1	163.5	121.8	92.9	103.2	88.0	74.2	75.3
1	98.2	84.6	103.6	75.9	139.5	90.8	54.6	110.3	119.2	164.5	121.8	93.1	102.8	88.0	74.1	75.5
8	98.1	84.6	103.2	77.1	139.4	90.6	54.6	110.1	118.9	164.8	121.4	92.7	102.9	87.9	74.0	75.5
15	98.2	84.5	102.2	77.4	139.4	90.6	54.6	110.2	119.2	164.8	121.7	92.8	103.1	87.9	74.0	75.2
22	98.6	85.1	101.0	76.9	139.3	90.5	54.8	110.1	119.3	163.1	122.1	93.1	103.4	88.0	74.4	75.0
29	98.9	85.7	100.2	77.5	139.1	90.4	54.6	110.0	119.1	161.2	122.0	92.9	103.5	88.0	74.5	75.5
March 7	99.4	85.6	101.3	76.7	138.9	90.4	54.5	109.9	119.4	159.4	122.0	92.7	103.6	88.0	74.6	75.8
14	100.5	84.4	101.7	77.1	138.5	90.3	54.2	109.5	119.2	159.1	121.9	92.2	103.6	88.2	74.9	76.0

Real effective exchange rates

Index numbers, March 1973=100. The index of the real effective exchange rate is the index of the effective exchange rate adjusted for inflation differentials which are measured by wholesale prices of nonfood manufactures. Exchange rates and trade weights used in the construction of this index are the same as those used for effective exchange rate indices. Annual figures are averages of months.

	United States	Canada	Japan	United Kingdom	Germany	France	Italy	Belgium	Netherlands	Switzerland	Austria	Denmark	Norway	Sweden	Australia	Spain
1976	100.1	106.7	89.0	96.6	101.2	100.0	92.6	97.9	101.8	110.8	106.1	96.1	99.0	109.0	101.6	105.0
1977	99.8	99.8	94.7	101.5	102.5	96.1	95.5	99.7	103.8	105.2	109.2	97.3	99.7	105.1	91.6	100.7
1978	95.2	92.8	108.8	106.3	103.3	96.7	93.8	99.6	103.6	121.7	109.2	103.5	95.4	96.5	86.9	96.9
1979	95.2	92.8	97.4	118.5	104.2	98.7	93.5	97.0	100.2	115.3	107.9	101.6	90.3	99.1	85.6	109.4
1979																
March	94.3	92.8	103.2	111.2	104.6	98.3	92.4	98.8	102.7	117.6	108.2	103.5	91.7	97.4	85.7	105.0
April	94.7	95.5	98.6	115.6	103.4	98.1	93.7	97.7	101.6	115.7	107.1	101.8	92.1	97.8	85.6	108.8
May	95.6	94.7	98.0	116.5	103.4	98.0	93.7	96.7	100.5	115.2	106.4	99.8	91.7	99.2	85.8	113.2
June	95.9	92.9	97.6	119.8	103.7	98.2	93.1	96.3	99.4	116.8	106.1	98.7	90.4	100.1	85.3	112.3
July	94.1	92.8	97.6	127.5	103.7	98.1	93.1	96.6	98.4	115.6	106.3	100.1	88.2	99.9	85.0	111.9
August	94.3	92.6	97.6	126.6	103.3	98.1	94.2	96.0	98.8	113.8	106.3	101.9	88.4	100.6	85.8	112.5
September	94.4	93.1	95.6	123.3	103.8	98.7	94.6	95.8	99.0	115.2	108.0	103.8	88.8	100.2	85.8	111.5
October	96.4	92.6	92.0	121.3	104.4	99.5	93.8	96.0	98.2	113.2	108.8	103.3	89.7	100.0	86.0	112.1
November	97.8	92.4	86.4	121.1	105.5	100.4	93.6	96.0	97.9	112.0	109.4	101.2	89.3	100.7	85.4	111.2
December	96.1	92.9	88.1	122.9	105.7	100.8	95.0	94.7	98.8	112.4	109.1	96.8	88.8	100.4	85.4	109.9
1980																
January	95.5	94.6	88.0	127.1	104.8	101.0	96.8	94.2	97.9	110.4	109.1	95.1	89.3	99.8	84.4	108.6
February	96.2	94.8	86.4	129.5	104.4	100.5	97.2	93.8	97.6	107.9	109.0	93.7	90.5	100.4	84.9	109.2

Euro-currency market size

based on foreign-currency liabilities and claims of banks in major European countries, the Bahamas, Bahrain, Cayman Islands, Panama, Canada, Japan, Hong Kong, and Singapore billions of dollars (rounded to nearest $5 billion), at end of period

	1971	1972	1973	1974	1975	1976	1977	1978	1979		
									Jun	Sep[r]	Dec[p]
Estimated size											
Gross	145	200	305	375	460	565	695	895	965	1070	1120
Liabilities to nonbanks	30	35	55	75	80	100	125	170	200	220	n.a.
Liabilities to central banks	15	25	40	60	70	85	110	120	130	140	n.a.
Liabilities to other banks[a]	100	140	210	240	310	380	460	605	635	710	n.a.
Net	85	110	160	215	250	310	380	485	530	580	610
Claims on nonbanks	35	45	65	100	115	150	195	245	265	280	n.a.
Claims on central banks and on banks outside market area[b]	35	45	75	95	115	135	155	195	220	245	n.a.
Conversions of Euro funds into domestic currencies by banks in market area[c]	15	20	20	20	20	25	30	45	45	55	n.a.
Euro-dollars as % of gross liabilities in all Euro-currencies	76	78	73	77	78	79	76	74	73	72	n.a.

a includes unallocated liabilities
b includes unallocated claims
c in European market area only
r revised
p preliminary

Euro-currency deposit rates

prime banks' bid rates in London, at or near end of month

	1976	1977	1978	1979						1980	
	Dec	Dec	Dec	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
Euro-dollar:											
overnight	4.63	7.12	10.62	10.75	11.25	11.75	14.25	12.87	14.00	13.50	13.75
7-day fixed	4.75	6.31	10.62	10.87	11.37	11.87	14.37	13.00	14.00	13.62	14.62
one month	5.13	6.87	11.00	10.94	11.75	13.00	15.06	13.56	14.37	14.00	16.12
three months	5.00	7.19	11.69	11.31	12.12	12.75	15.69	14.00	14.44	14.37	16.94
six months	5.38	7.50	12.31	11.12	12.12	12.75	15.31	13.94	14.44	14.37	17.00
twelve months	5.56	7.67	12.00	10.81	11.69	12.19	14.25	12.87	12.87	13.81	16.37
Euro-mark:											
one month	4.62	2.19	3.19	6.19	7.25	7.19	8.12	9.12	8.50	8.25	8.75
three months	4.69	2.50	3.31	6.50	7.44	7.44	8.94	8.81	8.56	8.37	9.31
six months	4.75	2.81	3.69	6.94	7.62	7.50	8.87	8.62	8.56	8.44	9.37
twelve months	4.81	3.06	3.81	6.94	7.62	7.50	8.62	8.00	8.12	8.56	9.44
Euro-Swiss franc:											
one month	0.94	1.31	—.06	1.31	1.87	1.06	2.94	4.25	5.19	4.75	3.75
three months	1.44	1.37	0.00	1.44	1.00	1.75	4.00	4.50	5.75	5.37	5.50
six months	2.12	1.87	0.12	2.31	2.69	2.00	4.50	4.62	5.87	5.62	5.75
twelve months	2.50	2.25	0.62	2.56	2.94	2.37	4.12	4.50	5.56	5.62	5.87
Euro-sterling:											
one month	16.37	6.50	12.00	14.75	14.37	13.87	14.37	16.00	16.75	18.50	17.75
three months	16.12	6.62	12.62	14.75	14.25	14.06	15.12	16.50	16.75	18.00	18.50
six months	14.75	7.12	13.25	14.12	14.25	14.06	15.00	16.25	16.75	17.00	18.37
twelve months	14.50	7.37	13.00	13.25	13.75	13.50	14.56	15.12	15.25	16.00	17.87
Euro-French franc:											
one month	12.37	12.25	10.50	11.94	11.87	13.12	13.12	13.12	13.87	12.12	13.12
three months	12.62	13.25	9.87	12.06	12.44	13.25	14.00	13.62	14.00	12.81	13.87
six months	12.62	14.00	9.87	12.50	12.94	13.37	14.00	13.62	14.12	13.37	14.62
twelve months	12.50	13.25	10.25	12.25	12.94	13.31	13.87	13.62	13.75	13.56	14.62
Euro-yen:											
one month	7.00	0.62	—.69	6.00	6.87	6.87	5.87	8.50	7.62	7.75	9.12
three months	6.62	1.81	0.62	6.00	7.00	7.31	7.94	8.75	8.31	8.25	10.12
six months	6.44	2.75	1.87	6.37	7.00	7.19	8.06	8.44	8.62	8.25	10.37
twelve months	6.25	3.25	2.19	6.50	7.00	7.00	7.56	7.56	7.94	8.25	10.25

Euro-currency bank credits

publicly-announced in period, in millions of dollars

	1977	1978	1979	1980			Jan-Mar	
				Jan[r]	Feb[r]	Mar[p]	1980	1979
Industrial countries	**17 205**	**28 952**	**27 238**	**1 529**	**1 703**	**1 829**	**5 061**	**5 073**
Canada	3 292	5 705	1 845	—	—	—	—	300
Denmark	868	2 242	1 205	—	—	250	250	300
Finland	314	550	92	—	150	—	150	50
France	2 325	1 915	2 955	—	76	—	76	360
Greece	204	509	1 010	—	—	—	—	—
Ireland	440	616	687	—	—	—	—	—
Italy	1 024	2 485	3 698	365	223	1 085	1 673	515
Japan	112	27	—	—	—	—	—	—
Norway	182	1 517	935	27	14	—	41	361
Spain	1 973	2 426	4 184	455	430	15	900	926
Sweden	1 446	1 872	1 263	88	125	—	213	78
United Kingdom	1 992	3 899	795	230	—	143	373	425
United States	826	1 206	2 348	234	75	106	415	786
Other[a]	2 207	3 983	6 221	130	610	230	970	972
Developing countries	**20 976**	**37 300**	**47 984**	**1 465**	**1 541**	**1 557**	**4 563**	**9 629**
Non-OPEC countries	13 494	26 902	**35 411**	876	1 058	853	2 787	6 813
Argentina	849	1 461	2 965	—	120	15	135	1 137
Brazil	2 814	5 634	6 278	—	40	250	290	1 545
Chile	591	1 045	867	28	42	20	90	—
Korea	1 265	2 651	3 258	262	414	—	676	582
Malaysia	212	858	1 168	—	—	—	—	—
Mexico	2 727	7 250	8 243	—	145	225	370	1 360
Morocco	797	605	500	—	—	100	100	—
Peru	189	—	596	—	39	105	144	50
Philippines	698	2 073	2 067	200	22	15	237	535
Taiwan	524	255	1 063	—	—	—	—	100
Other[b]	2 828	5 070	8 406	386	236	123	745	1 504
OPEC countries	7 481	10 398	12 553	589	483	704	1 776	2 816
Algeria	723	2 576	1 906	—	—	—	—	800
Indonesia	817	1 118	1 061	99	62	261	422	38
Iran	1 220	1 107	—	—	—	—	—	—
United Arab Emirates	1 086	726	401	55	—	—	55	10
Venezuela	1 666	2 054	6 830	120	186	327	633	1 358
Other	1 969	2 817	2 355	315	235	116	666	610
Communist countries	**3 394**	**3 767**	**7 325**	—	**450**	—	**450**	**1 595**
China	—	—	3 395	—	—	—	—	—
East Germany	832	642	796	—	—	—	—	180
Hungary	300	700	260	—	250	—	250	10
Poland	19	374	849	—	—	—	—	560
Other[c]	2 243	2 051	2 025	—	200	—	200	845
International organizations	**190**	**160**	**275**	—	—	—	—	**125**
TOTAL	**41 765**	**70 179**	**82 802**	**2 994**	**3 694**	**3 386**	**10 074**	**16 422**

a includes multi-national organizations   *b* includes regional development organizations   *c* includes COMECON institutions   *p* preliminary
r revised

International bond yields

long-term issues, at or near end of month

	1976	1977	1978	1979						1980	
	Dec	Dec	Dec	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
U.S. companies:											
U.S. dollar	7.39	7.95	8.55	8.83	8.99	9.27	10.10	10.07	10.13	10.35	11.27
Swiss franc	5.46	5.31	5.70	6.12	6.16	6.20	6.48	6.54	6.61	6.84	7.27
European companies:											
U.S. dollar	8.56	8.42	9.21	9.45	9.65	9.86	10.79	10.76	10.93	11.61	12.95
German mark	7.38	6.80	6.84	7.08	7.13	7.16	7.40	7.46	7.55	7.74	8.70
Governments:											
U.S. dollar	8.90	8.42	9.12	9.25	9.43	9.49	10.41	10.57	10.66	10.94	12.07

New international bond issues

new issues in period, in millions of dollars

	1977	*1978*	*1979*	*1980*			*Jan-Mar*	
				Jan	*Febr*	*Marp*	*1980*	*1979*
By type:								
Euro-bonds, total	**17 771**	**14 125**	**18 726**	**1 135**	**846**	**410**	**2 391**	**4 959**
by category of borrower								
U.S. companies	1 130	1 122	2 872	114	45	—	159	790
Foreign companies	7 347	4 540	7 183	310	427	228	965	1 648
State enterprises	4 667	3 291	4 524	293	367	103	763	1 363
Governments	2 936	3 643	2 433	378	7	44	429	776
International organizations	1 691	1 529	1 714	40	—	35	75	382
by currency of denomination								
U.S. dollar	11 627	7 290	12 565	370	692	210	1 272	2 774
German mark	4 131	5 251	3 626	551	29	127	707	1 517
Dutch guilder	452	394	531	39	59	13	111	212
Canadian dollar	655	—	425	—	—	—	—	—
European unit of account	28	165	253	—	—	25	25	—
Other	878	1 025	1 326	175	66	35	276	456
Foreign bonds outside the United States, total	**8 777**	**14 359**	**17 749**	**2 095**	**1 098**	**577**	**3 770**	**6 071**
by category of borrower								
U.S. companies	40	245	217	—	—	29	29	156
Foreign companies	1 421	2 110	3 463	147	206	230	583	749
State enterprises	2 427	3 163	3 284	132	289	249	670	591
Governments	2 043	5 771	7 663	1 533	433	—	1 966	4 293
International organizations	2 846	3 070	3 122	283	170	69	522	282
by currency of denomination								
German mark	2 181	3 789	5 379	1 359	345	—	1 704	1 644
Swiss franc	4 970	5 698	9 777	545	556	560	1 661	3 727
Dutch guilder	211	385	75	—	31	—	31	—
Japanese yen	1 271	3 826	1 833	84	145	—	229	573
Other	144	671	685	110	21	17	148	127
Foreign bonds in the United States, total	**7 428**	**5 795**	**4 515**	**522**	**92**	**250**	**864**	**1 504**
by category of borrower								
Canadian entities	3 022	3 142	2 193	200	92	250	542	874
International organizations	1 917	459	1 100	250	—	—	250	350
Other	2 489	2 194	1 222	72	—	—	72	280
By country of borrower:								
Industrial countries	**23 851**	**24 964**	**31 886**	**3 117**	**1 822**	**1 133**	**6 072**	**10 511**
Australia	1 074	1 218	593	—	230	—	230	296
Austria	1 384	1 027	1 218	144	81	112	337	238
Canada	5 277	4 764	4 197	328	92	250	670	1 877
Denmark	796	1 018	752	176	—	—	176	237
Finland	358	952	699	39	122	—	161	151
France	1 945	1 286	2 106	196	112	75	383	357
Japan	1 979	3 467	5 775	255	450	304	1 009	1 149
Netherlands	682	251	832	8	80	68	156	85
New Zealand	567	744	553	—	—	—	—	127
Norway	1 889	2 751	1 955	165	118	170	453	775
Sweden	1 574	876	1 530	332	50	—	382	224
United Kingdom	1 915	1 365	1 181	—	121	35	156	350
United States	1 353	2 973	6 767	1 287	45	29	1 361	3 503
Developing countries	**3 421**	**4 227**	**3 093**	**62**	**44**	—	**106**	**1 009**
Non-OPEC countries	2 676	2 684	2 675	62	44	—	106	873
Brazil	732	843	930	—	—	—	—	367
Mexico	1 282	568	363	37	—	—	37	165
Philippines	129	170	175	—	—	—	—	30
OPEC countries	745	1 543	418	—	—	—	—	136
Algeria	166	721	208	—	—	—	—	99
Venezuela	438	588	55	—	—	—	—	—
Communist countries	**248**	**30**	**75**	—	—	—	—	—
Hungary	174	—	—	—	—	—	—	—
International organizations	**6 454**	**5 058**	**5 936**	**573**	**170**	**104**	**847**	**1 014**
TOTAL	**33 976**	**34 279**	**40 990**	**3 752**	**2 036**	**1 237**	**7 025**	**12 534**

Central bank discount rates

	1976	*1977*	*1978*	*1979*				*Current*	
	end Dec	*end Dec*	*end Dec*	*end Mar*	*end Jun*	*end Sep*	*end Dec*	*Mar 19 1980*	*effective since*
United States	5.25	6.00	9.50	9.50	9.50	11.00	12.00	16.00[a]	Mar 14, 80
Canada	8.50	7.50	10.75	11.25	11.25	12.25	14.00	14.19	Mar 13, 80
Japan	6.50	4.25	3.50	3.50	4.25	5.25	6.25	9.00	Mar 19, 80
United Kingdom	14.25	7.00	12.50	13.00	14.00	14.00	17.00	17.00	Nov 15, 79
Belgium	9.00	9.00	6.00	6.00	9.00	9.00	10.50	14.00	Mar 19, 80
France	10.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	Aug 31, 77
Germany	3.50	3.00	3.00	4.00	4.00	5.00	6.00	7.00	Feb 29, 80
Italy	15.00	11.50	10.50	10.50	10.50	10.50	15.00	15.00	Dec 6, 79
Netherlands	6.00	4.50	6.50	6.50	7.00	8.00	9.50	9.50	Nov 29, 79
Austria	4.00	5.50	4.50	3.75	3.75	3.75	3.75	5.25	Jan 24, 80
Denmark	10.00	9.00	8.00	8.00	9.00	11.00	11.00	13.00	Feb 18, 80
Finland	9.25	8.25	7.25	7.25	7.25	7.25	8.50	9.25	Feb 1, 80
Ireland	14.75	6.75	11.85	11.85	13.70	13.70	16.40	16.40	Dec 7, 79
Norway	6.00	6.00	7.00	7.00	7.00	7.00	9.00	9.00	Nov 30, 79
Spain	7.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Jul 26, 77
Sweden	8.00	8.00	6.50	6.50	6.50	8.00	9.00	10.00	Jan 18, 80
Switzerland	2.00	1.50	1.00	1.00	1.00	1.00	2.00	3.00	Feb 28, 80
Brazil	28.00	28.00	33.00	33.00	33.00	33.00	33.00	33.00	Nov, 78
Korea	13.00	14.00	14.50	14.50	14.50	14.50	14.50	20.50	Jan 12, 80
New Zealand	8.50	10.00	11.00	12.50	13.00	13.00	14.00	14.00	Dec 20, 79
Philippines	6.00	6.00	6.00	6.00	6.00	6.00	6.00	6.00	Dec 12, 74
Singapore	4.00	3.50	4.50	4.50	5.00	5.75	6.75	7.50	Jan 19, 80
South Africa	9.00	9.00	8.50	7.50	7.50	7.00	7.00	7.00	Aug 13, 79
Venezuela	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	Oct 14, 70

[a]: applicable to large banks; 13% for other banks

Day-to-day money rates

monthly averages

	1976	*1977*	*1978*	*1979*						*1980*	
	Dec	*Dec*	*Dec*	*Jul*	*Aug*	*Sep*	*Oct*	*Nov*	*Dec*	*Jan*	*Feb*
United States	4.65	6.55	9.91	10.42	10.88	11.32	13.07	13.64	13.74	13.80	13.89
Canada	8.66	6.84	9.44	11.03	10.96	9.87	12.08	12.18	13.83	13.14	12.74
Japan	7.11	5.01	4.57	5.86	6.73	6.81	6.74	7.61	8.02	8.12	8.93
Australia	7.17	9.96	8.40	8.58	8.74	8.89	8.50	7.86	7.84	7.95	8.22
United Kingdom	14.56	4.81	10.00	12.06	11.66	12.78	11.50	11.75	14.87	14.25	16.12
Belgium	7.51	7.48	6.73	9.66	9.37	8.96	11.49	10.01	10.65	11.72	10.18
France	10.44	9.30	6.67	9.34	10.44	11.00	11.47	11.95	12.17	11.99	12.17
Germany	5.03	3.24	3.61	5.75	6.40	6.70	6.62	7.85	9.15	8.25	8.12
Italy	16.75	11.37	11.00	11.25	11.25	11.25	12.37	12.37	16.00	16.50	16.60
Netherlands	6.89	5.27	10.00	8.81	8.81	9.56	9.41	11.07	15.67	11.42	11.01
Austria	n.a.	9.25	5.37	6.00	5.75	6.50	6.62	6.75	8.50	8.75	9.00
Finland	14.53	22.99	9.29	8.31	8.36	8.68	9.13	12.87	13.53	12.70	11.14
Ireland	14.81	8.00	12.12	15.75	16.12	17.62	16.75	16.75	16.88	24.00	16.88
Spain	8.03	7.22	16.75	13.32	15.34	10.80	8.14	9.84	9.61	11.18	n.a.
Sweden	10.69	8.91	6.26	9.16	10.00	9.24	10.75	9.08	11.99	10.71	12.31
Switzerland	0.50	0.85	0.00	0.50	0.87	1.12	0.75	1.50	1.25	1.50	1.25
Brazil	25.92	28.44	35.64	20.16	27.00	36.72	24.00	24.00	32.28	27.12	n.a.
Hong Kong	4.81	4.87	9.67	10.25	12.50	10.37	10.25	10.37	14.19	14.50	15.75
Korea	14.00	14.40	15.00	15.00	15.00	15.00	15.00	15.00	15.00	19.20	n.a.
Mexico	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11
Philippines	15.46	14.44	13.22	14.61	14.56	11.75	10.48	11.69	16.25	11.41	n.a.
Singapore	3.59	3.59	4.98	7.11	7.09	6.66	6.40	6.85	10.17	10.13	9.59
South Africa	7.59	7.65	7.11	4.90	4.36	4.12	3.79	3.59	3.81	3.94	4.01
Euro-dollars	4.66	6.94	10.80	10.77	11.34	11.73	13.37	12.70	14.41	13.77	14.87

Treasury bill rates

bond-equivalent yields, at or near end of month

	1976	1977	1978	1979						1980	
	Dec	Dec	Dec	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
United States	4.41	6.33	9.42	9.42	9.97	10.62	12.37	11.68	12.39	12.96	14.92
Canada	8.14	7.17	10.46	11.25	11.45	11.64	13.61	13.62	13.66	13.50	13.55
Japan	5.68	4.15	3.39	4.15	5.17	5.17	5.17	5.17	5.68	5.68	5.68
Australia	8.73	8.35	8.35	9.02	9.02	9.02	9.02	9.02	9.31	9.33	9.52
United Kingdom	13.98	6.42	12.01	13.78	13.78	14.01	13.93	16.75	16.45	16.93	16.71
Belgium	10.00	9.25	9.25	12.00	12.00	13.00	14.00	14.30	14.40	14.40	15.00
Ireland	14.28	6.74	11.83	13.48	13.60	13.56	13.72	16.36	16.37	16.08	16.45
Italy	17.38	12.81	12.81	11.62	11.62	11.62	12.93	13.05	15.62	13.17	15.43
Netherlands	5.63	6.00	9.50	8.75	9.00	9.00	9.50	14.00	12.75	10.75	10.50
Sweden	9.75	9.21	5.84	6.60	6.60	6.60	8.70	9.74	9.74	10.79	10.79
Brazil	38.58	38.08	41.21	40.44	37.26	36.34	31.48	27.33	27.84	24.62	n.a.
Korea	n.a.	16.88	17.01	19.53	19.53	19.53	19.53	19.53	19.53	22.01	n.a.
Mexico	n.a.	n.a.	12.75	14.89	15.32	15.58	15.95	16.85	17.89	n.a.	n.a.
New Zealand	4.00	7.50	10.50	10.60	10.60	10.60	11.25	11.25	11.25	11.25	11.25
Philippines	9.78	10.04	12.08	12.82	12.77	12.70	12.68	12.64	12.63	12.56	n.a
Singapore	2.99	3.17	4.01	4.60	5.25	5.73	5.70	5.65	6.18	6.77	6.74
South Africa	7.94	8.17	7.61	5.11	4.56	4.49	3.97	3.90	4.30	4.29	4.39

Representative money-market rates

bond-equivalent yields on major short-term (mostly 3-4 month) money-market instruments, other than Treasury bills, at or near end of month

	1976	1977	1978	1979						1980	
	Dec	Dec	Dec	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
United States	4.75	6.84	10.57	10.20	11.26	11.95	14.72	12.90	13.70	13.49	15.45
Canada	8.62	7.25	10.62	11.62	12.00	11.90	14.62	13.65	14.15	13.80	13.75
Japan	6.75	5.89	4.64	5.81	6.41	7.12	6.97	8.14	8.01	8.02	9.86
Australia	9.75	9.75	9.10	10.00	10.20	10.30	10.65	10.50	10.30	10.30	10.40
United Kingdom	14.38	6.50	12.50	14.19	14.12	14.06	14.75	16.81	17.00	17.75	18.31
Belgium	10.50	9.50	9.25	12.00	12.00	12.50	14.10	14.35	14.45	14.50	15.25
France	10.00	9.19	6.44	10.69	11.37	11.62	12.50	12.37	12.62	12.19	13.62
Germany	4.80	3.60	3.70	6.95	7.45	7.90	9.75	9.50	8.70	8.85	9.50
Ireland	14.69	6.75	13.00	17.87	17.62	17.62	17.50	17.75	18.12	18.00	18.37
Italy	16.63	11.75	11.37	11.62	11.62	11.62	12.75	13.62	17.12	17.75	17.62
Netherlands	5.88	6.25	10.50	9.62	9.62	9.87	10.75	14.75	13.00	11.37	12.87
Spain	11.36	12.06	22.80	16.20	18.80	15.70	11.60	12.80	13.20	13.40	n.a.
Switzerland	1.84	2.02	0.50	1.62	2.12	1.62	3.62	4.50	6.12	6.00	5.25
Hong Kong	5.50	5.73	11.82	11.50	13.45	13.12	12.75	13.25	14.37	15.37	15.50
Korea	16.99	16.88	17.01	19.53	19.53	19.53	19.53	19.53	19.53	22.01	n.a.
New Zealand	10.37	11.87	12.00	15.25	15.50	15.00	16.00	16.25	16.00	16.20	15.75
Philippines	15.47	11.96	11.48	10.76	10.13	9.94	10.01	10.13	10.41	10.33	n.a.
Singapore	3.75	4.81	7.38	7.81	8.25	8.75	8.25	8.25	10.12	10.12	10.25
South Africa	9.73	9.00	7.85	5.45	5.03	4.93	4.30	4.12	4.72	4.61	4.93

Commercial bank deposit rates

at or near end of month

	1976	*1977*	*1978*	*1979*						*1980*	
	Dec	*Dec*	*Dec*	*Jul*	*Aug*	*Sep*	*Oct*	*Nov*	*Dec*	*Jan*	*Feb*
United States	4.70	6.80	10.90	10.30	11.35	12.10	14.50	13.20	13.55	13.40	15.55
Canada	8.00	7.25	10.45	11.55	11.80	11.90	14.50	13.40	14.05	13.70	13.75
Japan	4.50	3.25	2.50	3.25	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Australia	9.75	9.50	8.50	9.50	9.70	9.90	10.00	10.15	10.25	10.40	10.50
United Kingdom	14.13	6.37	12.25	14.00	14.19	14.06	14.62	16.75	16.81	17.50	17.75
Belgium	10.00	9.50	9.87	12.12	12.13	13.00	14.37	14.63	14.50	14.50	15.12
France	9.50	9.00	6.50	10.50	11.25	11.50	12.50	12.75	12.50	12.25	12.75
Germany	4.20	3.40	3.50	6.50	6.50	7.00	8.25	8.25	7.75	8.00	8.50
Italy	17.00	17.00	12.50	12.50	12.50	12.50	13.02	12.50	13.25	13.25	13.25
Netherlands	6.13	7.00	11.62	10.00	10.12	10.25	11.00	15.00	13.50	12.00	13.00
Austria	n.a.	9.00	6.75	7.50	7.37	8.25	8.75	8.50	8.50	8.75	8.75
Denmark	9.00	8.00	7.00	8.00	8.00	10.00	10.00	10.00	10.00	10.00	12.00
Finland	5.75	4.25	3.25	3.25	3.25	3.25	3.25	4.25	4.25	4.25	5.00
Ireland	n.a.	6.87	12.75	16.75	17.37	17.25	17.25	17.50	17.87	18.00	18.00
Norway	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Spain	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Sweden	7.75	7.75	6.25	6.75	6.75	6.75	7.75	8.75	8.75	9.75	9.75
Switzerland	1.50	1.12	0.12	0.75	1.25	1.00	2.25	3.75	4.75	4.75	4.75
Brazil	45.60	39.60	46.80	40.92	40.80	40.68	42.12	43.20	45.00	45.48	n.a.
Hong Kong	3.25	1.75	4.50	7.75	9.25	9.25	9.25	9.25	9.25	9.25	9.25
Korea	15.00	13.20	15.00	15.00	15.00	15.00	15.00	15.00	15.00	19.20	n.a.
Mexico	9.50	9.50	12.00	12.00	12.34	13.68	15.13	16.80	16.75	n.a.	n.a.
New Zealand	10.25	11.00	12.00	15.00	14.75	14.50	15.50	15.75	15.90	15.80	14.25
Philippines	8.50	8.50	8.50	8.50	8.50	8.50	8.50	8.50	10.50	10.50	10.50
Singapore	3.75	5.31	7.31	7.44	8.12	8.44	8.31	8.12	10.31	10.38	10.75
South Africa	9.75	8.70	7.30	5.27	4.87	4.75	4.10	4.00	4.82	4.40	4.75
Venezuela	8.00	7.00	7.25	13.50	13.50	13.50	13.50	15.00	15.00	15.00	n.a.
Euro-dollars	5.00	7.19	11.69	11.31	12.12	12.75	15.69	14.00	14.44	14.37	16.94

Commercial bank lending rates to prime borrowers

at or near end of month

	1976	*1977*	*1978*	*1979*						*1980*	
	Dec	*Dec*	*Dec*	*Jul*	*Aug*	*Sep*	*Oct*	*Nov*	*Dec*	*Jan*	*Feb*
United States	6.00	7.75	11.75	11.75	12.75	13.50	15.00	15.50	15.25	15.25	16.75
Canada	9.25	8.25	11.50	12.50	12.50	13.00	14.75	15.00	15.00	15.00	15.00
Japan	7.42	5.47	4.50	5.06	5.38	5.68	5.86	6.16	6.51	6.80	7.00
Australia	11.50	11.50	11.00	10.75	10.75	10.75	10.75	10.75	10.75	11.25	11.25
United Kingdom	15.50	8.00	13.50	15.00	15.00	15.00	15.00	18.00	18.00	18.00	18.00
Belgium	11.75	10.00	10.00	12.50	12.50	13.25	14.00	14.75	15.25	15.50	16.50
France	11.65	11.35	10.95	12.20	12.20	12.50	12.65	13.65	13.65	13.65	14.65
Germany	6.50	6.00	5.50	7.75	7.75	8.25	8.75	9.75	9.75	9.75	9.75
Italy	21.00	16.00	15.00	15.00	15.00	15.00	16.50	16.50	19.50	19.50	19.50
Netherlands	8.50	7.00	12.00	11.00	11.00	11.00	11.37	15.00	15.00	13.25	14.25
Austria	n.a.	9.75	8.75	8.00	8.00	8.00	8.50	8.50	8.50	9.50	9.50
Denmark	14.00	12.50	10.00	11.00	11.00	13.00	13.25	13.75	13.75	13.75	15.75
Finland	9.71	8.85	7.87	7.84	7.83	7.85	7.85	8.98	9.06	n.a.	n.a.
Ireland	13.25	7.50	13.00	15.50	15.50	15.50	15.50	15.50	15.50	15.50	15.50
Norway	8.33	8.33	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
Spain	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
Sweden	10.25	10.25	8.50	8.75	8.75	8.75	9.75	10.75	10.75	11.75	11.75
Switzerland	7.50	6.75	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Brazil	30.00	52.05	61.70	63.00	63.00	57.00	57.00	57.00	57.00	57.00	57.00
Hong Kong	6.00	4.75	8.75	13.00	14.50	14.50	14.50	14.50	14.50	14.50	14.50
Korea	17.00	15.00	18.50	18.50	18.50	18.50	18.50	18.50	18.50	24.50	n.a.
Mexico	15.50	17.00	17.50	17.50	17.50	17.50	19.00	19.00	19.00	19.00	19.00
New Zealand	7.50	8.50	10.75	11.50	12.00	11.75	13.50	12.50	12.00	n.a.	n.a.
Philippines	14.00	14.00	14.00	14.00	14.00	14.00	14.00	14.00	16.00	16.00	16.00
Singapore	6.78	7.02	7.65	8.35	8.78	8.92	9.10	9.18	9.50	10.25	10.55
South Africa	12.50	12.50	11.50	10.00	9.50	9.50	9.50	9.50	9.50	9.50	9.50
Venezuela	9.50	9.50	10.25	11.50	11.50	11.50	11.50	13.00	13.00	13.00	n.a.
Euro-dollars	5.50	7.56	12.06	11.68	12.49	13.12	16.06	14.37	14.81	14.74	17.31

Domestic government bond yields

long-term issues, at or near end of month

	1976	1977	1978	1979						1980	
	Dec	Dec	Dec	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
United States	7.20	7.97	9.00	8.95	9.05	9.28	10.50	10.09	10.20	11.11	12.60
Canada	8.47	8.77	9.68	9.84	10.15	10.38	11.16	10.94	11.32	12.13	12.91
Japan	8.61	6.40	6.40	7.85	8.14	8.04	8.46	8.78	8.63	8.56	9.17
Australia	10.50	9.50	8.90	10.25	10.15	10.15	10.30	10.40	10.45	10.65	11.50
United Kingdom	14.31	10.53	12.75	12.10	11.76	12.05	12.72	13.98	13.83	13.30	13.89
Belgium	9.30	8.76	8.80	9.63	9.80	9.90	10.58	11.00	11.13	11.42	11.93
France	11.04	11.07	9.94	11.25	11.67	11.56	11.60	12.09	12.59	12.52	14.11
Germany	7.28	5.52	6.65	7.71	7.66	7.65	8.07	7.81	7.91	8.13	8.86
Italy	13.92	10.82	10.89	10.91	10.84	10.81	11.26	11.31	11.28	11.39	11.56
Netherlands	8.40	8.11	8.48	8.98	8.73	8.77	8.83	9.18	9.29	9.41	10.37
Austria	8.55	9.00	7.91	8.16	8.19	8.22	8.26	8.27	8.20	8.20	n.a.
Denmark	14.57	16.83	17.27	17.23	17.35	17.76	17.80	18.04	18.28	18.55	19.71
Finland	10.92	10.25	9.19	9.39	9.41	9.53	9.34	9.49	9.58	9.94	10.13
Ireland	15.49	11.30	13.44	15.99	15.92	15.72	16.64	16.64	16.64	15.95	15.95
Norway	7.25	8.37	8.19	8.29	8.32	8.25	8.28	10.19	10.04	10.10	10.15
Sweden	9.61	9.84	10.09	10.41	10.44	10.49	n.a.	n.a.	n.a.	n.a.	n.a.
Switzerland	4.43	3.75	3.03	3.51	3.51	3.50	3.63	4.04	4.20	4.48	5.03
New Zealand	8.70	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Philippines	13.41	13.40	13.40	13.40	13.40	13.40	13.30	13.30	13.20	13.40	13.40
South Africa	11.00	10.75	9.85	9.73	9.55	9.40	9.29	9.34	9.44	9.38	9.33
Venezuela	7.04	7.24	7.24	7.21	7.35	7.36	7.35	7.33	7.29	7.38	n.a.

Domestic corporate bond yields

long-term issues, at or near end of month

	1976	1977	1978	1979						1980	
	Dec	Dec	Dec	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
United States	7.35	8.30	9.25	9.20	9.45	9.70	11.00	10.50	10.75	11.88	12.88
Canada	9.58	9.71	10.34	10.52	10.85	11.09	11.97	11.72	12.07	12.80	13.35
Japan	8.81	6.63	6.94	7.80	7.75	7.79	8.11	8.34	8.34	8.12	8.12
Australia	12.00	11.00	10.25	11.35	11.25	11.15	11.40	11.65	11.65	11.90	12.60
United Kingdom	15.96	11.88	13.53	12.76	12.64	12.88	13.40	14.89	14.96	14.25	14.55
Belgium	11.88	9.85	9.58	10.32	10.83	10.92	11.34	11.70	11.93	11.82	12.22
France	11.39	12.09	10.27	11.54	12.03	11.88	11.84	12.33	12.92	12.91	14.57
Germany	7.47	5.92	6.80	8.00	7.80	7.80	8.00	8.40	8.20	8.10	n.a.
Italy	16.90	10.71	10.12	10.07	10.04	9.92	9.99	9.90	10.22	10.22	10.56
Netherlands	8.22	7.90	8.62	9.15	8.96	8.82	9.10	9.50	9.95	9.78	10.54
Norway	7.65	8.59	8.37	8.45	8.54	8.63	n.a.	10.94	10.53	10.71	10.75
Spain	10.86	11.58	12.17	11.79	12.04	12.04	11.54	11.40	11.77	11.34	n.a.
Sweden	9.82	9.83	10.03	9.16	9.59	9.65	9.75	9.81	10.21	10.43	10.78
Switzerland	5.50	4.96	4.85	5.17	5.24	5.27	5.28	5.44	5.53	5.61	5.63
Korea	21.70	19.60	24.00	29.20	29.20	29.20	29.20	31.00	32.50	32.50	n.a.
Mexico	15.56	17.56	20.37	19.51	21.01	21.57	21.63	22.43	21.99	n.a.	n.a.
Venezuela	10.37	10.39	12.43	12.69	12.71	13.35	13.59	14.06	14.55	13.63	n.a.

Key to data in tables

I. International markets

Definitions

An *international bond* issue is one sold outside the country of the borrower. It may be either a Euro-bond issue or a foreign bond issue.

A *Euro-bond* issue is one underwritten by an international syndicate and sold principally in countries other than the country of the currency in which the issue is denominated.

A *foreign bond* issue is one underwritten by a syndicate composed of members from one country, sold principally in that country, and denominated in the currency of that country.

A *Euro-currency bank credit* is a loan in a currency which is not native to the country in which the bank office making the loan is located.

Data on *new international bond issue volume* include all publicly announced issues with an original maturity of three years or more, whether publicly or privately placed, but exclude those where the investor is a central bank, monetary authority, or government.

Data on *new Euro-currency bank credit volume* include all publicly announced loans with an original maturity of more than one year. A loan is included in the period in which the lending banks make a commitment covering the amount and terms of the loan to the borrower.

Categories of borrower

U.S. companies include both parent companies and their financing affiliates, either domestic or foreign.

Other companies include private companies domiciled outside the United States and their affiliates.

State enterprises include public agencies.

Governments include central and local governments.

Country of borrower

The country of the borrower is the residence of the borrowing entity, except where the entity is a financing vehicle, in which case the residence of the parent company and or guarantor is used.

International bond yields

Yields are calculated to the nearest day of maturity. Interest on bonds with annual coupons is discounted semiannually for comparability in computation of yield.

The yield indices are simple arithmetic averages of end-of-month secondary market yields for groups of selected straight-debt securities. Yield indices for six categories of bonds have been calculated according to borrower and currency. They are based on issues of good-quality, well-known borrowers. Occasionally the individual issues in each category are changed.

The number of issues represented in each of the indices is as follows:

Long-Term, U.S. companies, U.S. dollar — —ten Euro-bond issues.

Long-term, U.S. companies, Swiss franc — five foreign bond issues.

Long-term, European companies, U.S. dollar — ten Euro-bond issues.

Long-term, European companies, German mark — ten Euro-bond issues.

Long-term, governments, U.S. dollar — six Euro-bond issues (governments of Italy, Denmark, and France).

Euro-currency deposit rates

All data are prime banks' bid rates for deposits in London. Offer rates commonly used as a basis for Euro-dollar lending are generally .125% above bid rates.

II. Domestic markets

Day-to-day money rates

Austria — day-to-day interbank rate.

Australia — approximate effective interest rate in the authorized short-term money market.

Belgium — interbank call money.

Brazil — overnight financing of Treasury bills (LTN). From December 1979, rates paid for federal funds.

Canada — chartered banks' day-to-day loans.

Finland — Bank of Finland call money.

France — interbank call money against private paper.

Germany — interbank call money.

Hong Kong — interbank 24-hour call rate.

Ireland — interbank call money.

Italy — interbank 48 hour call money.

Japan — Tokyo interbank call money, overnight lenders rate until December 1974. New series as of January 1975, unconditional lenders rate.

Korea — call money.

Mexico — financiera bonds in bearer form available to corporations, redeemable on demand. Higher rates available to individuals.

Netherlands — open-market call money.

Philippines — interbank call money.

Singapore — interbank overnight money.

South Africa — National Finance Corporation call money.

Spain — day-to-day interbank rate.

Sweden — interbank call money.

Switzerland — call money.

United Kingdom — call money.

United States — effective Federal funds rate.

Euro-dollars — prime banks' bid rate for overnight money.

Treasury bill rates

Australia — new issues of 13-week Treasury notes.

Belgium — 3-month Treasury certificates.

Brazil — 91-day Treasury bills (LTN).

Canada — 3-month Treasury bills at tender.

Ireland — 3-month Central Bank Exchequer bills.

Italy — 6-month Treasury bills.

Japan — 60- to 62-day noninterest-bearing discount government bills.

Korea — 3-month Treasury bills sold by Korean Central Bank.

Mexico — 3-month Federal Treasury bills.

Netherlands — 3-month Treasury bills.

New Zealand — 3-month Treasury bills.

Philippines — 91-day Treasury bills at tender.

Singapore — 91-day Treasury bills at tender.

South Africa — 3-month Treasury bills at tender.

Sweden — new issues of 3-month Treasury bills.

United Kingdom — 91-day Treasury bills at tender.

United States — 3-month Treasury bills.

Representative money-market rates

Australia — 3-month prime finance company paper.

Belgium — 4-month Fonds des Rentes certificates.

Canada — 3-month prime finance company paper.

France — 3-month interbank money against private paper.

Germany — 3-month interbank deposits.

Hong Kong — 3-month interbank deposits.

Ireland — 3-month interbank deposits.

Italy — 3-month interbank deposits.

Japan — Tokyo interbank call money, unconditional, lender's rate until December 1974. New series as of January 1975, 3-month repurchase agreements.

Korea — 3-month financial bill.

Netherlands — 3-month municipal loans until December 1976. New series as of January 1977, 3-month interbank deposits.

New Zealand — 90-day commercial bills.

Philippines — 90-day promissory notes.

Singapore — 3-month bank acceptances.

South Africa — 90-day bank acceptances.

Spain — 1- to 2-month interbank deposits.

Switzerland — 3-month interbank deposits.

United Kingdom — 3-month interbank deposits.

United States — 3-month prime industrial paper.

Commercial bank deposit rates

Austria — 3-month time deposits.

Australia — 3-month certificates of deposit.

Belgium — special maximum rate for 3-month time deposits in large amounts.

Brazil — 6-month negotiable certificates of deposit of investment banks net of taxes.

Canada — 3-month time deposits.

Denmark — time deposits of 3-months' notice.

Finland — time deposits of six-month notice.

France — 3-month time deposits of FF. 1,000,000.

Germany — 3-month time deposits in large amounts.

Hong Kong — 3-month certificates of deposit. Rate set by the Hong Kong Exchange Banks' Association.

Ireland — 3-month time deposits.

Italy — 3-month time deposits of Lit. 100 million or more.

Key to data in tables – continued

Japan — 3-month time deposits.

Korea — 3-month time deposits.

Mexico — 3-month certificates of deposit issued by financieras to corporations for amounts over Ps. 1 million. Higher rates available to individuals.

Netherlands — 3-month time deposits in large amounts.

New Zealand — 6-month transferable certificates of deposit.

Norway — 3-month time deposits. Higher rates may be negotiated for 12-month or more time deposits in large amounts.

Philippines — 3-month time deposits.

Singapore — 3-month time deposits until May 1975, 3-month certificates of deposit thereafter.

South Africa — 3-month time deposits at merchant bank until May 1975. Negotiable certificates of deposit from June 1975.

Spain — maximum legal rate for 3-month deposits.

Sweden — deposits at 6-months' notice.

Switzerland — 3-month time deposits.

United Kingdom — 3-month time deposits.

United States — 3-month negotiable certificates of deposit issued by Morgan Guaranty Trust Company.

Venezuela — 6-month certificates of deposit for amounts above Bv. 250,000 until December 1977. New series as of January 1979, 6-month certificates of deposits for domestic borrowers for amounts above Bv. 1,500,000.

Euro-dollars — prime banks' bid rate for 3-month deposits in London.

Commercial bank lending rates to prime borrowers

Austria — overdraft rate for prime borrowers, including commission.

Australia — approximate overdraft rate for prime borrowers. Rate for prime borrowers usually .25% to .75% below the maximum overdraft rate; rate shown is .5% below.

Belgium — prime overdraft rate.

Brazil — commercial bank legal maximum rate (discount basis) for maturities up to 60 days until August 1977. In addition, compensating balances were required. New series as of September 1977, weighted average investment bank lending rates.

Canada — prime rate.

Denmark — approximate rate for loans and advances to prime borrowers.

Finland — average rates on total commercial bank lending.

France — overdraft rate for prime borrowers, including a commission of .05% per month on highest debit balance during the month.

Germany — approximate effective overdraft rate for prime borrowers.

Hong Kong — prime rate.

Ireland – AAA corporate borrowing rate.

Italy — unsecured overdraft rate for prime borrowers.

Japan — average rate on loans and discounts of city banks, computed by the Bank of Japan until December 1974. New series as of January 1975, average contracted interest rate for short-term loans of city banks. In addition, compensating balances may be required.

Korea — prime rate.

Mexico — major bank prime rate, subject to legal maximum. In addition, compensating balances are required.

Netherlands — overdraft rate for prime borrowers, including commission.

New Zealand – overdraft rate for prime borrowers.

Norway — overdraft rate, including a commission of .333% prior to July 1978, .25% thereafter, per quarter on the total line of credit.

Philippines — maximum legal rate, for unsecured loans exclusive of service fee.

Singapore — most common overdraft rate, major banks.

South Africa — unsecured overdraft rate for prime borrowers.

Spain — maximum legal rate for discounting commercial bills plus a commission of 1% per annum. In addition, compensating balances may be required.

Sweden – actual interest rate on 3-month loans to prime industrial borrowers.

Switzerland — overdraft rate for prime borrowers, including commission of .25% per quarter on highest debit balance in quarter.

United Kingdom — unsecured overdraft rate for prime borrowers.

United States — prime rate of Morgan Guaranty Trust Company. In addition, compensating balances are required.

Venezuela – representative rate for prime borrowers until December 1978. New series as of January 1979, similar rate for domestic prime borrowers only.

Euro-dollars — representative average rate for 3-month loans to prime borrowers.

Domestic government bond yields

Austria — Austrian National Bank average yield on all outstanding government bonds.

Australia — 20-year government bonds.

Belgium — Belgian National Bank average yield on government bonds maturing in more than five years.

Canada — Bank of Canada average yield on all direct government bonds due or callable in 10 years or more.

Denmark – 5% government bond of 2007 until December 1976. New series as of January 1977, 10% government bonds with maturity of 7 to 8 years.

Finland — rate of interest at issue on central government bonds intended for public subscription, weighted by sales of bonds in the latter half of each month.

France — Institut National de la Statistique et des Etudes Economiques (INSEE) yield on public and semi-public sector bonds.

Germany — Frankfurter Allgemeine Zeitung (FAZ) 7% public authority bond average until September 1978. New series as of October 1978, FAZ 10-year public authority bond average.

Ireland – 15-year government bonds.

Italy — average of yields on six outstanding bonds of public-sector entities, new series as of January 1977.

Japan — average yield on outstanding maturities of 6.5% national government bonds until December 1974. New series as of January 1975, secondary market yield for the 6.1% due 1988 national government bond.

Netherlands — Central Bureau of Statistics (CBS) average yield on three latest 7% to 7.75% government bonds.

New Zealand – average yield on government bonds maturing after 10 years.

Norway — 5% government bond of 1996.

Philippines — Central Bank 5-year Certificate of Indebtedness, regular issue.

South Africa – 25-year government bonds.

Sweden — 15-year government bonds.

Switzerland — Swiss Confederation bond average.

United Kingdom — F.T. (Financial Times) Actuaries 20-year government stock until December 1975. New series as of January 1976, F.T. Actuaries 25-year government stock.

United States — Morgan Guaranty 20-year U.S. Government Bond Index.

Venezuela — Banco Central average yield on public-sector bond issues.

Domestic corporate bond yields

Australia — long-term secured debentures, indicated by Australian United Corporation.

Belgium — Belgian National Bank average yield on private corporate bonds maturing in more than five years.

Canada — McLeod, Young, Weir Co. Ltd., average yield on ten industrial bonds.

France — INSEE tax-adjusted average yield on outstanding private corporate bonds.

Germany – FAZ 6% industrial bond average until September 1978 New series as of October 1978, Bundesbank average yield on industrial bonds

Italy – average of yields on five outstanding bonds of leading Italian industrial companies; new series as of January 1977.

Japan — average of yields on outstanding Nippon Telegraph & Telephone interest-bearing yen debentures until December 1974. New series as of January 1975, secondary market yield for NTT bond maturing April 1987.

Korea — average of yields on 3-year corporate bonds guaranteed by local banks.

Mexico — 9% Teléfonos de Mexico bond, series AA, of 1990 until December 1976. Average of yields of six outstanding Telefonos de Mexico bonds from January 1977.

Netherlands — CBS average yield on three 6% to 6.5% corporate bonds.

Norway — 5.75% Dalen Portland-Cement bond of 1969-1984.

Spain — average yield for a selected group of electricity companies.

Sweden — Central Satistical Bureau average yield on industrial bonds.

Switzerland — average yield on outstanding bonds of four leading Swiss companies.

United Kingdom — F.T. (Financial Times) Actuaries 20-year debentures and loans.

United States — Salomon Brothers index of new issue yields for Aa industrial bonds with five-year call protection.

Venezuela — average of yields on 15-year bond issues of Electricidad de Caracas.

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World Financial Markets

Morgan Guaranty Trust Company of New York

April, 1980

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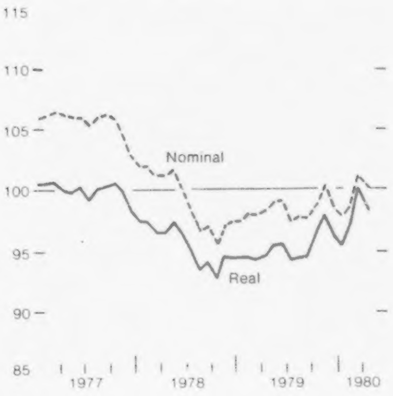
Effective dollar exchange rates
monthly averages, index, March 1973 = 100



Foreign exchange market developments

The dollar has weakened sharply since the first week in April, following the abrupt decline in U.S. interest rates. The weakening virtually reversed the dollar's steep runup in the three weeks following the tightening of U.S. monetary policy on March 14. As of April 29, the dollar on an effective basis was practically unchanged from its level on March 13, after appreciating by more than 4½% between March 13 and April 7. In terms of the mark, the Swiss franc, and the yen, the dollar is again trading close to levels prevailing in early March, i.e., DM 1.80, SwF 1.67, and Y239 per dollar, after having climbed as high as DM 1.97, SwF 1.87, and Y261 per dollar at the end of the first week in April (see Table 1 and charts). Nevertheless, the dollar's effective exchange rate is still about 2% above its level at the beginning of this year.

The steep rise in U.S. interest rates in March and early April contributed to the dollar's exceptional strength in that period. Interest differentials have favored the dollar by a wide margin so far this year, and they were especially large following the Federal Reserve's credit restraint measures of March 14 (see Table 2). They attracted net private capital inflows into the United States estimated at nearly $20 billion in the first quarter of 1980. These inflows far exceeded the seasonally unadjusted U.S. current account deficit, which is estimated to have been about $6 billion, excluding non-repatriated earnings on foreign direct investment. Using the prevailing definition, which includes these non-repatriated earnings as a current account receipt, the U.S. deficit widened to a seasonally adjusted annual rate of $16-$17 billion in the first quarter of 1980 from a deficit of about $3½ billion at an annual rate in the fourth quarter of 1979.

During the period of exceptional dollar strength in March and early April, foreign central banks intervened heavily to keep their currencies from falling even further. In contrast, after the dollar began to weaken in the second week of April, intervention was relatively light, as in other periods of sharp turns in the dollar. It was not until the aftermath of the U.S. attempt to free the hostages in Iran, when the dollar fell back to its early March levels, that intervention to support the dollar picked up.

The magnitude of net dollar sales is suggested by declines in U.S. liabilities to foreign official institutions of about $15 billion in the first three and one-half months of this year. Roughly two thirds of this amount occurred in March and early April. This estimate by no means is a precise measure of official intervention partly because it incorporates changes in U.S. liabilities to countries other than the major industrial nations, including OPEC members and the non-OPEC LDCs. OPEC holdings of dollar investments in the United States probably increased considerably during this period, but there is also evidence of declines in the dollar holdings of other developing countries, as they ran down reserves to cover part of their enlarged current account deficits.

The vast majority of foreign intervention was accounted for by Japan, Germany, Switzerland, and Canada. Net dollar sales by the Bank of Japan alone are estimated to have exceeded $4½ billion in March and early April, including over $2 billion financed by withdrawals of dollar deposits held at Japanese foreign exchange banks that are not included in Japan's reported official reserves. Germany's official reserves fell by more than $4 billion in March and early April. But these figures may understate the extent of support operations because the Bundesbank conducted swap operations in which it bought dollars spot and simultaneously sold dollars forward for the purpose of putting liquidity back into the domestic market. This had the effect of temporarily adding to German official reserve holdings. Official reserve figures for Switzerland suggest net dollar sales in March and early April on the order of $1½ billion. Swiss reserve figures have also been affected by swap operations. Net intervention by the Bank of Canada in March was about $1 billion.

In addition to reserve drawdowns, the governments of Germany, Japan, and Switzerland have taken steps to help finance their countries' large current account deficits and/or to offset private capital outflows. The German government has relaxed restrictions that prevented nonresidents from investing in German securities of less than four-years maturity. Foreigners are now permitted to purchase government securities and mark-denominated promissory notes with maturities of two years or more. Last month, the German government reportedly placed DM3 billion of its own paper with Saudi Arabia and announced the possibility of placing up to DM2 billion more. In addition, the German government may have sold its paper to other Middle East countries. It also has borrowed DM1 billion from the U.S. government in the form of medium-term promissory notes. With Germany's current account expected to be in deficit by $12 billion or more this year and likely to remain in deficit for some time, and with Germany's official reserves already down by $8 billion this year as of mid-April, the German authorities probably will engage in additional borrowings in the future.

Japan faces the prospect of financing a current account deficit this year even larger than that of Germany. The Japanese authorities have responded by adopting a number of measures to attract capital inflows and to discourage capital outflows. These include allowing foreign exchange banks to bring into Japan funds acquired in the Euro-yen market, permitting Japanese banks to make dollar-denominated "impact loans" to domestic customers, increasing the maximum amount of foreign currencies convertible into yen by banks, and tightening foreign exchange reporting requirements of banks and trading companies. The Bank of Japan has also taken steps to actively pro-

Table 1

Dollar exchange rates

in foreign currency units per dollar, except Canadian dollar and British pound that are in U.S. cents per foreign currency unit

	Jan 2 1980	*Apr 7 1980*	*Apr 29 1980*
Canadian dollar	85.8	84.1	84.3
Japanese yen	238.4	260.8	239.0
German mark	1.71	1.97	1.80
Swiss franc	1.58	1.87	1.67
British pound	224.2	213.4	228.4
French franc	4.01	4.54	4.20
Italian lira	801.1	910.8	845.8

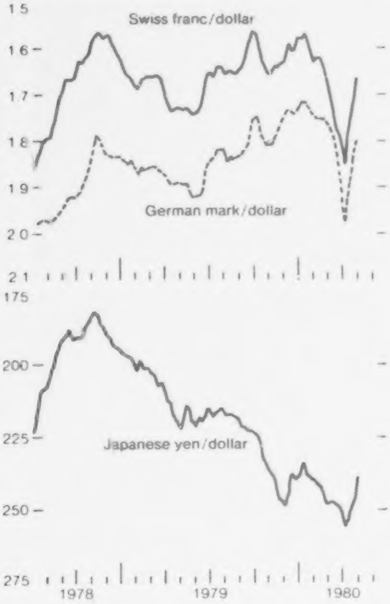
Table 2

Three-month Euro-currency deposit rates

percent per annum

	Jan 2 1980	*Apr 7 1980*	*Apr 29 1980*
U.S. dollar	14.31	19.69	14.62
German mark	8.56	10.19	9.19
Swiss franc	5.75	6.88	6.56
British pound	16.75	18.44	17.00
French franc	14.12	14.00	12.75
Japanese yen	8.50	15.25	13.00

Spot exchange rates
data are weekly averages



Latest plotting April 29th

mote capital inflows from foreign official institutions. These steps include the suspension of interest rate ceilings on free yen deposits for such institutions and the stepping up of sales of securities out of its own portfolio to foreign official institutions. The Japanese authorities are reported to have reached an agreement to sell the equivalent of up to $200 million of yen denominated bonds per month to Saudi Arabia. Sales to other Middle East countries are also a possibility.

The Swiss authorities have responded to the Swiss franc's weakness primarily by liberalizing restrictions on capital inflows. These actions included suspending the negative interest rate on foreign deposits of Swiss banks, lifting the ban on interest payments on deposits of three months or more, and permitting banks in Switzerland to place fiduciary funds on behalf of foreigners in Swiss francs. Last month, the World Bank, for the second time in six months, was allowed to place Swiss-franc-denominated bonds with a number of foreign central banks, subject to the condition that the central banks would purchase the Swiss francs at the Swiss National Bank. The Swiss National Bank reportedly is also considering taking deposits from, and/or issuing its own paper directly to, foreign central banks. Indeed, earlier this month foreign central banks, for the first time, were permitted to subscribe to a new issue of short-term Swiss government certificates.

The various measures undertaken by the German, Japanese, and Swiss authorities represent an important departure from their previous policy stance, which sought to discourage capital inflows and to restrict use of their currencies as reserve assets. These countries had the option of responding to their payments' imbalances by raising domestic interest rates more than they did in order to dampen their economies, to reduce their current account deficits, and to induce private capital inflows. From a global economic and balance-of-payments perspective, the chosen policy stance is clearly the preferable option. As long as there is a large OPEC current account surplus, it is important that the major industrial nations share the counterpart deficit equitably among themselves and the non-OPEC LDCs. Moreover, with the evidence that the U.S. economy already has begun to weaken, it is important to minimize a synchronized slowing such as occurred in 1974-75.

Apart from the broader economic implications, these borrowings have important exchange market implications. Being a form of exchange market intervention, they can help moderate exchange rate movements during periods of rapid shifts in external payments positions, particularly those resulting from large capital movements that lead to significant departures from longer-run equilibrium exchange rate levels. In doing so, countries engaging in such borrowings will be able to enjoy some of the benefits of reserve currency status — namely, access to balance-of-payments financing to help stabilize exchange rates. The danger, of course, is that fundamental movements in exchange rates may be resisted.

In the process, the authorities of Germany, Japan, and Switzerland have also provided new outlets for satisfying the desires for portfolio diversification in a stable manner. Even though it has not been a problem in recent months, reserve diversification has continued, and with the rapid buildup of OPEC assets, it could intensify in the future. The willingness of these three countries to accept at least a limited reserve currency role for their currencies through the establishment of mechanisms for conducting direct transactions with foreign official institutions will be useful in containing potential exchange rate pressures arising from reserve diversification. It will also contribute to the gradual and controlled evolution of a multiple-currency reserve system over the longer run. Indeed, the need for such direct transactions has been enhanced now that the prospects for the substitution account proposal have been dealt a serious setback at the recent IMF Interim Committee meeting at Hamburg.

At present, interest rate developments and private international capital flows are dominating the foreign exchange markets. Recently, there has been a sharp decline in U.S. and Euro-dollar interest rates and a narrowing of interest differentials favoring the dollar. The decline has been particularly steep at the short end of the maturity spectrum, where money market rates in the United States have fallen by as much as four-to-five percentage points from their recent peaks to levels close to those prevailing at end February or early March. Interest rate differentials in the Euro-market, however, have not narrowed to the full extent of the decline in Euro-dollar rates because of some easing in interest rates abroad (see Table 2).

The abrupt decline in U.S. interest rates came amidst evidence of a weakening of the U.S. economy, the slowing of the monetary aggregates, and indications that the Federal Reserve's credit restraint policies were biting. Preliminary GNP statistics showed real GNP advancing at only a 1.1% annual rate in the first quarter, despite more than a 16% annual rate increase in federal government expenditures in real terms. During the quarter there were signs of weakening in a number of key areas: Industrial production, after climbing moderately in January, declined at seasonally adjusted annual rates of 2.3% and 9.1%, respectively, in February and March. Housing starts deteriorated steadily throughout the quarter and by March were down to their lowest level since 1975. Retail sales declined at more than a 25% annual rate in real terms from January to March. Orders for manufacturers' durable goods fell by 3.2% in March. Auto sales declined throughout the quarter and continued to slump in April.

Since the Federal Reserve launched its more restrictive monetary policy on October 6, which emphasized reserve management to achieve the Federal Reserve's money supply targets, it has succeeded in hitting its money supply targets over the past two calendar quarters. In fact, over the thirteen weeks ended April 16, M-1A and M-1B have expanded at seasonally adjusted annual rates of only 0.5% and 1.4%, respectively, which are substantially below the lower limits of the Federal Reserve's annual target ranges.

The evidence to date suggests that the latest Fed measures, including the imposition of a special credit restraint program to curb the growth of bank credit to a 6%-9% range from end 1979, already have had an impact. Commercial and industrial loans (net of bankers' acceptances) of the weekly reporting member banks have leveled off since mid-March, after they had increased by $3 billion — a 12½% seasonally adjusted annual rate — in the first two and one-half months of this year. Similarly, consumer loans extended by the weekly reporting banks are virtually unchanged from mid-March (they had grown very little in the two months before the Fed steps to control consumer credit). The increase in the marginal reserve requirement from 8% to 10% and the lowering of the base have contributed to a slowing

Table 3

Publicized new international bond issues and medium-term Euro-currency bank credits

by market sector
in billions of dollars

	1979		1980
	Year	Jan-Apr	Jan-Apr^{p}
International bond issues	41.0	15.5	11.5
Euro-bond issues	18.7	6.6	5.7
U.S. dollar	12.6	3.6	4.1
German mark	3.6	1.8	1.0
Dutch guilder	0.5	0.2	0.1
Others	2.0	1.0	0.5
Foreign bond issues	22.3	8.9	5.8
German market	5.4	1.7	2.4
Swiss market	9.8	4.4	2.1
U.S. market	4.5	1.7	0.9
Japanese market	1.8	0.9	0.2
Other markets	0.8	0.2	0.2
Euro-currency bank credits	82.8	23.5	18.4
Total	123.8	39.0	29.9

p preliminary

of the growth of banks' managed liabilities. This is apparent in the decline in large negotiable CDs and commercial paper issued by banks in recent weeks and in the reduced security holdings in their portfolios.

Businesses, to some extent, have continued to expand the share of funding that they receive from nonbank and foreign bank sources. Commercial paper issued by nonfinancial institutions increased by $2.1 billion in the four weeks to April 16, representing a 62% annual rate increase. This is roughly in line with the more than 75% annual rate increase in the first two and one-half months of the year, when commercial paper of nonfinancial institutions expanded by $5 billion. There have also been reports of U.S. corporations increasing their credit facilities at foreign banks. Federal Reserve Chairman Volcker, however, recently dispatched a letter to the central banks of the major industrial countries asking them to urge banks in their countries to limit loans to U.S. customers in line with the objectives of the U.S. credit restraint program. U.S. corporations have recently stepped up their borrowings in the international bond market (see following article), and there are indications of a substantial buildup in the calendar for new corporate issues in the domestic bond market now that interest rates have fallen.

In the context of a weakening economy and below-target monetary expansion, declines in interest rates are not surprising. Federal Reserve Chairman Volcker repeatedly has stressed that any sustained declines in U.S. interest rates are contingent on both the economy and inflation slowing sufficiently to lower demand for money and credit. Under these conditions, falling U.S. interest rates would not necessarily signal an easing of U.S. monetary policy. At this juncture, the declines in U.S. interest rates have run ahead of any widespread evidence of a general slowing of inflation and appear primarily to reflect expectations of future reductions. For this decline to be sustained or continued, there eventually will have to be some concrete evidence of inflation slowing.

From a longer-run competitive perspective some correction in the real effective dollar exchange rate from the sharp runup in late March and early April was not undesirable, particularly given the adverse inflation differential faced by the United States. At its peak in the first week of April, the real effective exchange rate for the dollar stood more than 9% above its level a year earlier and nearly 12% above its low point in October, 1978 (see chart on page 1). It was about 5% above its longer-term, 1973-77 average level. By the end of April, however, the dollar's real rate was back to the longer-term average level. Over the next twelve months the United States faces an adverse inflation differential measured by wholesale prices of manufacturers of about 2%-3%. Looking at the real effective exchange rate levels for other currencies (see Statistical appendix), the yen and Australian dollar appear to be considerably undervalued from a longer-run perspective. Sterling, however, seems to be significantly overvalued on this basis.

Despite the dollar's recent setback due to U.S. interest-rate declines, the dollar should receive substantial support over the medium term from current account developments. As noted earlier, the United States ran a current account deficit of almost $20 billion at a seasonally adjusted annual rate in the first quarter. But it is conceivable that the U.S. current account position could move toward equilibrium by the end of this year. In contrast, Japan and Germany, which ran estimated current account deficits of $15 billion

Table 4

Publicized new international bond issues and medium-term Euro-currency bank credits

by country of borrower
in billions of dollars

	1979		1980
	Year	Jan-Apr	Jan-Apr[p]
Industrial countries	59.1	19.8	18.5
United States	9.1	4.5	2.7
Italy	4.0	1.5	2.4
Spain	4.6	1.7	1.7
Japan	5.8	1.7	1.5
Sweden	2.8	0.7	1.3
Belgium	1.5	*	1.2
Canada	6.0	2.5	1.2
France	5.1	0.9	0.9
United Kingdom	2.0	0.9	0.8
Denmark	2.0	0.7	0.7
Norway	2.9	1.2	0.7
Australia	1.5	0.4	0.5
Others	11.8	3.1	3.0
Non-OPEC LDCs	38.1	10.6	5.3
Mexico	8.6	2.6	0.9
Korea	3.3	1.0	0.9
Brazil	7.2	2.4	0.6
Argentina	3.5	1.3	0.5
Philippines	2.2	0.8	0.3
Thailand	0.7	0.1	0.2
Chile	0.9	0.1	0.2
Colombia	0.8	0.1	0.2
Peru	0.6	*	0.1
Taiwan	1.1	0.3	*
Turkey	3.0	—	—
Malaysia	1.3	0.1	—
Others	4.9	1.8	1.4
OPEC countries	13.0	4.3	3.3
Venezuela	6.9	1.8	1.5
Indonesia	1.1	0.5	0.8
Ecuador	0.6	0.1	0.5
Nigeria	1.4	0.4	0.3
Algeria	2.1	1.1	—
Others	0.9	0.4	0.2
Communist countries	7.4	2.9	0.8
Romania	0.6	0.3	0.4
Hungary	0.3	*	0.2
East Germany	0.8	0.2	0.2
Poland	0.9	0.6	*
China	3.4	1.1	—
Others	1.4	0.7	—
International organizations	6.2	1.4	2.0
Total	123.8	39.0	29.9

* less than $50 million
p preliminary

or more at seasonally adjusted annual rates in the first quarter, are not likely to reach equilibrium positions for perhaps two years or more. Similarly, the current account positions of France and Italy, both of which were in surplus as recently as the third quarter of 1979, have swung sharply into deficit and are now expected to register substantial deterioration this year. The dollar should also benefit from the likely slowing of inflation in the United States later this year.

International credit markets

Borrowing in the international credit markets has picked up in April after a slow first quarter. Publicized new international bond issues and medium-term Euro-currency bank credits reached $10½ billion in April, compared with an average of $6½ billion per month during the first quarter of 1980. Several billion dollars more of new international bond issues and Euro-loans currently are in the early stages of negotiation. Nonetheless, the preliminary total of new borrowings for January-April 1980 at nearly $30 billion is more than $9 billion below last year's figures (see Table 3).

Activity in the Euro-currency bank credit segment has fallen by more than $5 billion, to $18.4 billion, in January-April from the same period a year ago. New international bond issues declined by $4 billion to $11.5 billion, in the first four months of 1980. The pickup in volume during April was partly accounted for by several very large Euro-loans, including one major refinancing. It is noteworthy, however, that there have been only $1.3 billion of advanced refinancings to date, compared with more than $14 billion in all of 1979. In the international bond market the resurgence of activity in April was led by the issuance of more than $1.4 billion of fixed-rate dollar-denominated Euro-bonds, as the peaking of yields brought investors back to the market. This contrasts with the first quarter, which was characterized almost entirely by the issuance of floating-rate notes and certificates of deposit in the dollar sector of the Euro-bond market.

The recent revival of gross new borrowing has centered on industrial-country borrowers. Total borrowing by non-OPEC LDCs fell by half, to $5.3 billion, in the first four months of this year versus the same period in 1979. These countries have obtained more than $350 million in the international bond markets to date, compared with $2.7 billion in all of last year. Most of their borrowing has been in the form of bank credits. Among the dozen or so major non-OPEC LDC borrowers, only Korea has sustained a level of borrowing close to last year's pace. Borrowings by others, especially Brazil, Mexico, Argentina, the Philippines, and Taiwan, have fallen sharply from year-ago levels (see Table 4).

Non-OPEC LDCs' gross borrowing requirements from the private markets are presently projected to exceed $30 billion this year. This implies that recourse to the international credit markets in the next eight months may have to be nearly double the average monthly level during the first four months. They could, of course, reduce their borrowing requirements, for example, by running down foreign exchange reserves even more than the $5-$6 billion presently anticipated. These countries built up their reserves by more than $36 billion between the end of 1976 and the end of 1979 by borrowing more than was required to finance their aggregate current account deficits and maturing debts. With end-1979 foreign exchange reserves at $76 billion, or about three-months import cover, the non-OPEC LDCs conceivably could run down their holdings by as much as $10-$12 billion if necessary. In addition, these countries can utilize credit facilities arranged but not fully drawn down in prior years. Moreover, the non-OPEC LDCs may do more adjusting than presently anticipated, and thereby would moderate their demands for new credit. Nevertheless, in order to meet their still large financing needs during the remainder of the year, it would seem that many non-OPEC developing countries will have to accept wider margins to attract sufficient lenders.

Total borrowings by Communist countries declined to only $830 million in the first four months of this year versus nearly $3 billion in January-April 1979. Part of this decline can be attributed to the political uncertainties brought about by the Soviet invasion of Afghanistan. Lenders are also apprehensive about the high external debt burdens of many Eastern bloc countries. In addition, the People's Republic of China, which borrowed $3.4 billion last year, has yet to enter the markets in 1980.

Borrowing by OPEC members has slackened in the current January-April period chiefly as a consequence of the large improvements in their current account positions. Algeria, which raised more than $1 billion in the first four months of 1979, has been absent from the international credit markets this year. Venezuela, however, has continued to borrow heavily, largely because of the need to roll over maturing short-term Euro-loans obtained in the previous two years.

The volume of industrial country borrowing is down only slightly from last year's pace. U.S. entities other than the Treasury have raised $1.6 billion to date in the international credit markets, approximately the same amount borrowed in January-April 1979. U.S. nonbank corporations have obtained $800 million in the international bond markets since the Federal Reserve's credit restraint measures of March 14, and more debt issues are in the pipeline. Italy, Sweden, Spain, Belgium, France, and Denmark — all of which are experiencing balance-of-payments deterioration — also have been sizable borrowers. Although Canada has raised more than $1 billion to date, this is still down sharply from the $2.5 billion obtained in the first four months of 1979. Borrowings by Norway also have declined substantially, partly because of increased revenues from North Sea oil.

In the Euro-currency credit market, lending margins have not changed significantly in the past few months. Borrowers of high credit standing are still able to obtain margins of ⅜%-½% over LIBOR. Spreads for some lesser-rated borrowers, however, have widened moderately — by ⅛%-⅜% — from those prevailing last fall. In some instances, there also have been modest increases in front-end fees. Maturities have definitely shortened since last year, with eight years common at present versus the typical ten years during 1979.

Amidst the uncertainty about the trend in spreads and about future interest rate levels, several new instruments have been introduced in the international markets recently. This month a novel Euro-loan was arranged for a Spanish borrower: The spread over LIBOR is renegotiated according to prevailing market conditions each year within a range of ⅝%-1⅜%. In the Eurobond market there have been several medium-term, fixed-rate issues that give investors an option to convert their holdings into longer-term obligations.

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for key to data in tables see March 1980 issue of World Financial Markets

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Information herein is from sources considered to be reliable but is furnished without responsibility on the part of Morgan Guaranty Trust Company.

Effective exchange rates

Index numbers, March 1973=100. The index of the effective exchange rate for a currency is a measure of that currency's trade-weighted average appreciation or depreciation vis-à-vis the currencies of 15 other major countries. The exchange rates used in the construction of this index are the averages of daily noon spot exchange rates in New York for months and for weeks ending on dates shown. The trade weights used are based on 1976 bilateral trade in manufactures.

	United States	Canada	Japan	United Kingdom	Germany	France	Italy	Belgium	Netherlands	Switzerland	Austria	Denmark	Norway	Sweden	Australia	Spain
pre-June 1970 parities	118.5	94.9	79.3	116.2	91.6	97.5	110.9	95.9	98.2	88.3	97.8	97.9	98.1	102.2	92.2	98.4
Smithsonian central rates	107.0	101.3	88.7	116.0	95.4	96.1	108.3	97.0	99.1	91.6	98.0	96.0	96.3	100.5	91.7	98.1
1979																
April	98.3	86.0	117.4	72.5	134.5	89.8	55.5	110.5	118.9	164.8	116.5	101.7	102.2	87.5	74.0	76.8
May	99.0	85.4	116.7	72.5	134.9	89.3	55.4	109.6	118.3	165.1	116.3	100.2	102.0	88.2	74.2	79.7
June	99.1	84.1	116.1	73.9	135.5	89.4	55.2	109.6	117.6	166.3	116.3	98.2	101.7	88.5	74.2	79.0
July	97.3	84.2	115.7	77.3	136.0	89.1	55.4	110.1	117.3	166.3	116.7	98.6	100.6	88.2	73.7	76.9
August	97.7	83.8	115.1	76.6	135.9	89.1	55.6	110.1	117.6	165.8	117.3	98.3	101.2	88.5	74.0	77.2
September	97.6	84.2	112.3	74.5	137.1	89.4	55.4	110.5	118.2	168.8	119.4	99.1	101.6	88.3	74.3	76.6
October	98.9	83.7	108.8	73.0	138.3	89.9	54.6	110.9	118.0	167.7	120.5	98.8	102.8	88.5	74.6	77.0
November	100.2	83.6	102.4	72.7	139.7	90.7	54.4	110.8	118.3	166.0	121.3	98.5	102.0	88.3	74.7	76.7
December	98.7	84.0	103.5	73.9	140.2	91.2	54.4	110.4	119.4	167.5	121.5	94.6	101.3	88.1	74.2	75.3
1980																
January	97.9	84.3	104.2	75.6	139.9	91.0	54.4	110.4	119.4	166.6	121.6	93.5	101.8	87.9	73.9	75.2
February	98.4	85.0	101.7	77.2	139.3	90.5	54.7	110.0	119.1	163.4	121.7	92.9	103.2	88.0	74.2	75.3
March	101.3	84.3	101.9	77.4	137.8	90.2	53.9	109.6	118.7	159.1	121.4	91.7	104.2	88.2	75.1	75.5
7	99.4	85.6	101.3	76.7	138.9	90.4	54.5	109.9	119.4	159.4	122.0	92.7	103.6	88.0	74.6	75.8
14	100.5	84.4	101.7	77.1	138.5	90.3	54.2	109.5	119.2	159.1	121.9	92.2	103.6	88.2	74.9	76.0
21	102.1	83.8	102.3	77.5	137.5	89.9	53.7	109.4	118.6	159.5	121.2	91.4	104.6	88.2	75.2	75.7
28	102.4	83.6	102.4	77.7	137.0	90.0	53.7	109.4	118.4	159.0	121.1	91.1	104.7	88.3	75.3	75.3
April 4	104.4	83.3	101.0	78.3	135.6	90.0	53.6	109.3	117.8	157.4	120.3	90.5	105.2	88.7	75.9	74.2
11	103.2	83.8	100.5	78.0	136.5	90.4	53.4	109.3	118.3	159.8	120.8	91.2	104.9	88.4	75.5	73.8
18	102.1	83.4	101.6	78.0	137.2	90.5	53.4	109.9	118.2	162.1	121.3	91.4	104.4	88.1	75.5	73.2
25	101.0	83.4	102.4	78.6	137.8	90.3	53.3	110.7	118.1	162.8	121.6	91.3	104.0	88.0	73.0	75.1

Real effective exchange rates

Index numbers, March 1973=100. The index of the real effective exchange rate is the index of the effective exchange rate adjusted for inflation differentials which are measured by wholesale prices of nonfood manufactures. Exchange rates and trade weights used in the construction of this index are the same as those used for effective exchange rate indices. Annual figures are averages of months.

	United States	Canada	Japan	United Kingdom	Germany	France	Italy	Belgium	Netherlands	Switzerland	Austria	Denmark	Norway	Sweden	Australia	Spain
1976	100.3	106.7	88.3	96.6	101.2	100.0	92.6	97.9	101.8	110.9	106.1	96.2	99.1	109.1	101.8	105.1
1977	100.0	99.8	93.5	101.6	102.5	96.1	95.6	99.8	103.8	105.2	109.2	97.3	99.8	105.1	91.9	100.8
1978	95.4	92.9	107.2	106.4	103.3	96.8	93.8	99.6	103.7	121.7	109.3	103.5	95.6	96.6	87.3	97.0
1979	95.5	92.9	96.1	118.6	104.3	98.6	93.6	97.1	100.2	115.4	107.9	101.7	90.4	99.2	86.1	109.2
1979																
April	95.0	95.6	97.0	115.7	103.5	98.1	93.8	97.7	101.6	115.8	107.1	101.9	92.2	97.9	86.0	109.0
May	95.9	94.7	96.6	116.5	103.4	98.0	93.7	96.7	100.5	115.3	106.4	99.9	91.8	99.3	86.2	113.3
June	96.1	92.9	96.3	119.9	103.7	98.2	93.1	96.3	99.4	116.9	106.2	98.7	90.5	100.1	85.6	112.4
July	94.3	92.8	96.7	127.5	103.7	98.2	93.1	96.6	98.4	115.6	106.3	100.2	88.2	99.9	85.3	112.0
August	94.5	92.6	96.7	126.7	103.4	98.1	94.2	96.0	98.8	113.8	106.3	101.9	88.4	100.6	86.1	112.6
September	94.6	93.2	94.6	123.3	103.8	98.8	94.6	95.8	99.0	115.3	108.1	103.8	88.9	100.2	86.1	111.6
October	96.9	92.4	90.9	121.4	104.5	99.0	93.9	96.1	98.3	113.3	108.9	103.3	89.8	100.1	86.2	110.9
November	98.0	92.5	85.4	121.3	105.7	99.8	93.8	96.1	98.0	112.1	109.5	101.3	89.4	100.8	86.7	110.0
December	96.4	93.0	86.9	123.3	105.8	100.1	95.6	95.4	98.4	112.5	109.1	96.9	89.0	100.3	86.2	108.6
1980																
January	95.5	94.7	87.3	128.2	104.9	100.4	96.2	94.5	97.5	110.1	109.3	95.9	89.5	99.4	84.9	110.6
February	96.8	94.4	85.7	131.8	104.3	100.0	97.4	93.4	96.7	107.1	109.4	93.8	91.1	99.5	84.8	110.4
March	99.4	94.3	85.8	132.8	103.0	99.3	97.4	93.0	96.0	103.6	108.5	92.2	91.9	99.8	85.9	111.0

Euro-currency market size

based on foreign-currency liabilities and claims of banks in major European countries, the Bahamas, Bahrain, Cayman Islands, Panama, Canada, Japan, Hong Kong, and Singapore
billions of dollars (rounded to nearest $5 billion), at end of period

	1971	1972	1973	1974	1975	1976	1977	1978	1979		
									Jun	Sep	Dec[p]
Estimated size											
Gross	145	200	305	375	460	565	695	895	965	1070	1120
Liabilities to nonbanks	30	35	55	75	80	100	125	170	200	220	n.a.
Liabilities to central banks	15	25	40	60	70	85	110	120	130	140	n.a.
Liabilities to other banks[a]	100	140	210	240	310	380	460	605	635	710	n.a.
Net	85	110	160	215	250	310	380	485	530	580	610
Claims on nonbanks	35	45	65	100	115	150	195	245	265	280	n.a.
Claims on central banks and on banks outside market area[b]	35	45	75	95	115	135	155	195	220	245	n.a.
Conversions of Euro funds into domestic currencies by banks in market area[c]	15	20	20	20	20	25	30	45	45	55	n.a.
Euro-dollars as % of gross liabilities in all Euro-currencies	76	78	73	77	78	79	76	74	73	72	n.a.

a includes unallocated liabilities
b includes unallocated claims
c in European market area only
r revised
p preliminary

Euro-currency deposit rates

prime banks' bid rates in London, at or near end of month

	1976	1977	1978	1979					1980		
	Dec	Dec	Dec	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
Euro-dollar:											
overnight	4.63	7.12	10.62	11.25	11.75	14.25	12.87	14.00	13.50	13.75	19.25
7-day fixed	4.75	6.31	10.62	11.37	11.87	14.37	13.00	14.00	13.62	14.62	19.37
one month	5.13	6.87	11.00	11.75	13.00	15.06	13.56	14.37	14.00	16.12	19.25
three months	5.00	7.19	11.69	12.12	12.75	15.69	14.00	14.44	14.37	16.94	19.69
six months	5.38	7.50	12.31	12.12	12.75	15.31	13.94	14.44	14.37	17.00	19.56
twelve months	5.56	7.67	12.00	11.69	12.19	14.25	12.87	12.87	13.81	16.37	18.00
Euro-mark:											
one month	4.62	2.19	3.19	7.25	7.19	8.12	9.12	8.50	8.25	8.75	8.94
three months	4.69	2.50	3.31	7.44	7.44	8.94	8.81	8.56	8.37	9.31	9.69
six months	4.75	2.81	3.69	7.62	7.50	8.87	8.62	8.56	8.44	9.37	10.06
twelve months	4.81	3.06	3.81	7.62	7.50	8.62	8.00	8.12	8.56	9.44	10.00
Euro-Swiss franc:											
one month	0.94	1.31	—.06	1.87	1.06	2.94	4.25	5.19	4.75	3.75	5.87
three months	1.44	1.37	0.00	1.00	1.75	4.00	4.50	5.75	5.37	5.50	7.12
six months	2.12	1.87	0.12	2.69	2.00	4.50	4.62	5.87	5.62	5.75	7.50
twelve months	2.50	2.25	0.62	2.94	2.37	4.12	4.50	5.56	5.62	5.87	7.00
Euro-sterling:											
one month	16.37	6.50	12.00	14.37	13.87	14.37	16.00	16.75	18.50	17.75	18.00
three months	16.12	6.62	12.62	14.25	14.06	15.12	16.50	16.75	18.00	18.50	18.25
six months	14.75	7.12	13.25	14.25	14.06	15.00	16.25	16.75	17.00	18.37	18.37
twelve months	14.50	7.37	13.00	13.75	13.50	14.56	15.12	15.25	16.00	17.87	17.50
Euro-French franc:											
one month	12.37	12.25	10.50	11.87	13.12	13.12	13.12	13.87	12.12	13.12	13.37
three months	12.62	13.25	9.87	12.44	13.25	14.00	13.62	14.00	12.81	13.87	14.12
six months	12.62	14.00	9.87	12.94	13.37	14.00	13.62	14.12	13.37	14.62	14.50
twelve months	12.50	13.25	10.25	12.94	13.31	13.87	13.62	13.75	13.56	14.62	14.87
Euro-yen:											
one month	7.00	0.62	—.69	6.87	6.87	5.87	8.50	7.62	7.75	9.12	15.00
three months	6.62	1.81	0.62	7.00	7.31	7.94	8.75	8.31	8.25	10.12	15.50
six months	6.44	2.75	1.87	7.00	7.19	8.06	8.44	8.62	8.25	10.37	15.00
twelve months	6.25	3.25	2.19	7.00	7.00	7.56	7.56	7.94	8.25	10.25	13.62

Euro-currency bank credits

publicly-announced in period, in millions of dollars

	1977	1978	1979	1980			Jan-Apr	
				Feb[r]	Mar[r]	Apr[p]	1980	1979
Industrial countries	**17 205**	**28 952**	**27 248**	**1 927**	**1 594**	**4 208**	**9 246**	**6 790**
Canada	3 292	5 705	1 845	—	50	127	177	300
Denmark	868	2 242	1 205	23	358	40	421	360
Finland	314	550	92	150	—	200	350	50
France	2 325	1 915	2 955	76	32	—	108	360
Greece	204	509	1 010	64	—	550	614	—
Ireland	440	616	687	—	—	—	—	—
Italy	1 024	2 485	3 708	223	325	1 221	2 134	1 340
Japan	112	27	—	—	—	—	—	—
Norway	182	1 517	935	104	20	115	266	361
Spain	1 973	2 426	4 184	455	102	565	1 565	1 492
Sweden	1 446	1 872	1 263	145	—	—	233	143
United Kingdom	1 992	3 899	795	—	143	175	548	450
United States	826	1 206	2 348	75	216	—	525	848
Other[a]	2 207	3 983	6 221	612	348	1 215	2 413	1 086
Developing countries	**20 976**	**37 300**	**47 964**	**1 833**	**2 527**	**2 266**	**8 034**	**13 698**
Non-OPEC countries	13 494	26 902	35 411	1 346	1 214	1 553	4 932	9 582
Argentina	849	1 461	2 965	195	135	190	520	1 212
Brazil	2 814	5 634	6 278	40	250	350	640	2 005
Chile	591	1 045	867	42	20	74	164	73
Korea	1 265	2 651	3 258	514	82	64	922	938
Malaysia	212	858	1 168	—	—	—	—	—
Mexico	2 727	7 250	8 243	189	255	316	760	2 480
Morocco	797	605	500	—	—	—	—	200
Peru	189	—	596	40	105	—	145	50
Philippines	698	2 073	2 067	22	102	—	324	724
Taiwan	524	255	1 063	—	—	—	—	280
Other[b]	2 828	5 070	8 406	304	265	559	1 457	1 620
OPEC countries	7 481	10 398	12 553	487	1 313	713	3 102	4 116
Algeria	723	2 576	1 906	—	—	—	—	965
Indonesia	817	1 118	1 061	62	574	45	780	418
Iran	1 220	1 107	—	—	—	—	—	—
United Arab Emirates	1 086	726	401	4	—	—	59	240
Venezuela	1 666	2 054	6 830	186	478	607	1 391	1 783
Other	1 969	2 817	2 355	235	261	61	872	710
Communist countries	**3 394**	**3 767**	**7 325**	**480**	—	**350**	**830**	**2 945**
China	—	—	3 395	—	—	—	—	1 125
East Germany	832	642	796	—	—	200	200	180
Hungary	300	700	260	250	—	—	250	10
Poland	19	374	849	30	—	—	30	560
Other[c]	2 243	2 051	2 025	200	—	150	350	1 070
International organizations	**190**	**160**	**275**	—	—	—	—	**125**
TOTAL	**41 765**	**70 179**	**82 812**	**4 240**	**4 371**	**6 824**	**18 360**	**23 558**

[a] includes multi-national organizations [b] includes regional development organizations [c] includes COMECON institutions [p] preliminary
[r] revised

International bond yields

long-term issues, at or near end of month

	1976	1977	1978	1979					1980		
	Dec	Dec	Dec	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
U.S. companies:											
U.S. dollar	7.39	7.95	8.55	8.99	9.27	10.10	10.07	10.13	10.35	11.27	11.61
Swiss franc	5.46	5.31	5.70	6.16	6.20	6.48	6.54	6.61	6.84	7.27	7.32
European companies:											
U.S. dollar	8.56	8.42	9.21	9.65	9.86	10.79	10.76	10.93	11.61	12.95	13.07
German mark	7.38	6.80	6.84	7.13	7.16	7.40	7.46	7.55	7.74	8.70	9.33
Governments:											
U.S. dollar	8.90	8.42	9.12	9.43	9.49	10.41	10.57	10.66	10.94	12.07	12.17

New international bond issues

new issues in period, in millions of dollars

	1977	*1978*	*1979*	*1980*			*Jan-Apr*	
				Febr	*Marr*	*Aprp*	*1980*	*1979*
By type:								
Euro-bonds, total	**17 771**	**14 125**	**18 726**	**1 091**	**1 117**	**2 357**	**5 700**	**6 557**
by category of borrower								
U.S. companies	1 130	1 122	2 872	45	200	490	849	965
Foreign companies	7 347	4 540	7 183	457	403	639	1 809	2 196
State enterprises	4 667	3 291	4 524	437	327	593	1 650	1 822
Governments	2 936	3 643	2 433	152	152	500	1 182	1 038
International organizations	1 691	1 529	1 714	—	35	100	175	536
by currency of denomination								
U.S. dollar	11 627	7 290	12 565	792	765	2 130	4 057	3 624
German mark	4 131	5 251	3 626	174	235	55	1 015	1 765
Dutch guilder	452	394	531	59	13	30	141	212
Canadian dollar	655	—	425	—	—	67	67	231
European unit of account	28	165	253	—	25	—	25	86
Other	878	1 025	1 326	66	79	175	495	639
Foreign bonds outside the United States, total	**8 777**	**14 359**	**17 749**	**953**	**688**	**1 202**	**4 938**	**7 201**
by category of borrower								
U.S. companies	40	245	217	—	29	108	137	156
Foreign companies	1 421	2 110	3 463	206	230	223	806	1 215
State enterprises	2 427	3 163	3 284	289	245	47	713	800
Governments	2 043	5 771	7 663	288	28	81	1 930	4 628
International organizations	2 846	3 070	3 122	170	117	743	1 313	402
by currency of denomination								
German mark	2 181	3 789	5 379	200	54	785	2 398	1 723
Swiss franc	4 970	5 698	9 777	556	617	417	2 135	4 376
Dutch guilder	211	385	75	31	—	—	31	—
Japanese yen	1 271	3 826	1 833	145	—	—	229	866
Other	144	671	685	21	17	—	148	236
Foreign bonds in the United States, total	**7 428**	**5 795**	**4 515**	**92**	**255**	—	**869**	**1 704**
by category of borrower								
Canadian entities	3 022	3 142	2 193	92	253	—	545	874
International organizations	1 917	459	1 100	—	—	—	250	350
Other	2 489	2 194	1 222	—	2	—	74	480
By country of borrower:								
Industrial countries	**23 851**	**24 964**	**31 886**	**1 852**	**1 666**	**2 556**	**9 191**	**13 018**
Australia	1 074	1 218	593	230	—	—	230	296
Austria	1 384	1 027	1 218	81	140	—	365	358
Canada	5 277	4 764	4 197	92	253	297	970	2 158
Denmark	796	1 018	752	—	28	81	285	340
Finland	358	952	699	122	36	—	197	339
France	1 945	1 286	2 106	112	75	325	708	540
Japan	1 979	3 467	5 775	450	406	381	1 492	1 693
Netherlands	682	251	832	80	68	76	232	209
New Zealand	567	744	553	—	—	—	—	127
Norway	1 889	2 751	1 955	118	170	20	473	834
Sweden	1 574	876	1 530	80	152	540	1 104	524
United Kingdom	1 915	1 365	1 181	121	—	158	279	426
United States	1 353	2 973	6 767	45	286	598	2 216	3 678
Developing countries	**3 421**	**4 227**	**3 085**	**114**	**242**	**160**	**578**	**1 156**
Non-OPEC countries	2 676	2 684	2 667	44	92	160	358	1 020
Brazil	732	843	930	—	—	—	—	367
Mexico	1 282	568	363	—	37	90	164	165
Philippines	129	170	175	—	—	—	—	75
OPEC countries	745	1 543	418	70	150	—	220	136
Algeria	166	721	208	—	—	—	—	99
Venezuela	438	588	55	70	50	—	120	—
Communist countries	**248**	**30**	**75**	—	—	—	—	—
Hungary	174	—	—	—	—	—	—	—
International organizations	**6 454**	**5 058**	**5 936**	**170**	**152**	**843**	**1 738**	**1 288**
TOTAL	**33 976**	**34 279**	**40 982**	**2 136**	**2 060**	**3 559**	**11 507**	**15 462**

Central bank discount rates

	1976	1977	1978	1979				Current	
	end Dec	end Dec	end Dec	end Mar	end Jun	end Sep	end Dec	Apr 29 1980	effective since
United States	5.25	6.00	9.50	9.50	9.50	11.00	12.00	16.00[a]	Mar 14, 80
Canada	8.50	7.50	10.75	11.25	11.25	12.25	14.00	15.69	Apr 25, 80
Japan	6.50	4.25	3.50	3.50	4.25	5.25	6.25	9.00	Mar 19, 80
United Kingdom	14.25	7.00	12.50	13.00	14.00	14.00	17.00	17.00	Nov 15, 79
Belgium	9.00	9.00	6.00	6.00	9.00	9.00	10.50	14.00	Mar 19, 80
France	10.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	Aug 31, 77
Germany	3.50	3.00	3.00	4.00	4.00	5.00	6.00	7.00	Feb 29, 80
Italy	15.00	11.50	10.50	10.50	10.50	10.50	15.00	15.00	Dec 6, 79
Netherlands	6.00	4.50	6.50	6.50	7.00	8.00	9.50	9.50	Nov 29, 79
Austria	4.00	5.50	4.50	3.75	3.75	3.75	3.75	6.75	Mar 21, 80
Denmark	10.00	9.00	8.00	8.00	9.00	11.00	11.00	13.00	Feb 29, 80
Finland	9.25	8.25	7.25	7.25	7.25	7.25	8.50	9.25	Feb 1, 80
Ireland	14.75	6.75	11.85	11.85	13.70	13.70	16.40	16.85	Mar 21, 80
Norway	6.00	6.00	7.00	7.00	7.00	7.00	9.00	9.00	Nov 30, 79
Spain	7.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Jul 26, 77
Sweden	8.00	8.00	6.50	6.50	6.50	8.00	9.00	10.00	Jan 18, 80
Switzerland	2.00	1.50	1.00	1.00	1.00	1.00	2.00	3.00	Feb 28, 80
Brazil	28.00	28.00	33.00	33.00	33.00	33.00	33.00	33.00	Nov, 78
Korea	13.00	14.00	14.50	14.50	14.50	14.50	14.50	20.50	Jan 12, 80
New Zealand	8.50	10.00	11.00	12.50	13.00	13.00	14.00	14.00	Dec 20, 79
Philippines	6.00	6.00	6.00	6.00	6.00	6.00	11.00	11.00	Dec, 79
Singapore	4.00	3.50	4.50	4.50	5.00	5.75	6.75	8.50	Mar 10, 80
South Africa	9.00	9.00	8.50	7.50	7.50	7.00	7.00	7.00	Aug 13, 79
Venezuela	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	Oct 14, 70

[a]: applicable to large banks; 13% for other banks

Day-to-day money rates

monthly averages

	1976	1977	1978	1979					1980		
	Dec	Dec	Dec	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
United States	4.65	6.55	9.91	10.88	11.32	13.07	13.64	13.74	13.80	13.89	16.66
Canada	8.66	6.84	9.44	10.96	9.87	12.08	12.18	13.83	13.14	12.74	12.13
Japan	7.11	5.01	4.57	6.73	6.81	6.74	7.61	8.02	8.12	8.76	10.73
Australia	7.17	9.96	8.40	8.74	8.89	8.50	7.86	7.84	7.95	8.22	9.26
United Kingdom	14.56	4.81	10.00	11.66	12.78	11.50	11.75	14.87	14.25	16.12	15.00
Belgium	7.51	7.48	6.73	9.37	8.96	11.49	10.01	10.65	11.72	10.18	12.64
France	10.44	9.30	6.67	10.44	11.00	11.47	11.95	12.17	11.99	12.17	12.96
Germany	5.03	3.24	3.61	6.40	6.70	6.62	7.85	9.15	8.25	8.12	8.65
Italy	16.75	11.37	11.00	11.25	11.25	12.37	12.37	16.00	16.50	16.60	16.80
Netherlands	6.89	5.27	10.00	8.81	9.58	9.41	11.07	15.67	11.42	11.01	9.35
Austria	n.a.	9.25	5.37	5.75	6.50	6.62	6.75	8.50	8.75	9.00	10.25
Finland	14.53	22.99	8.29	8.36	8.68	9.13	12.87	13.53	12.70	11.14	11.97
Ireland	14.81	8.00	12.12	16.12	17.62	16.75	16.75	16.88	24.00	16.88	24.00
Spain	8.03	7.22	16.75	15.34	10.80	8.14	9.84	9.61	11.18	11.96	15.25
Sweden	10.69	8.91	6.26	10.00	9.24	10.75	9.08	11.99	10.71	12.31	11.32
Switzerland	0.50	0.85	0.00	0.87	1.12	0.75	1.50	1.25	1.50	1.25	1.75
Brazil	25.92	28.44	35.64	27.00	36.72	24.00	24.00	32.28	27.12	27.48	36.24
Hong Kong	4.81	4.87	9.67	12.50	10.37	10.25	10.37	14.19	14.50	15.75	13.87
Korea	14.00	14.40	15.00	15.00	15.00	15.00	15.00	15.00	19.20	19.20	19.20
Mexico	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11
Philippines	15.46	14.44	13.22	14.56	11.75	10.48	11.69	16.25	11.41	12.21	14.09
Singapore	3.59	3.59	4.98	7.09	6.66	6.40	6.85	10.17	10.13	9.59	9.55
South Africa	7.59	7.65	7.11	4.36	4.12	3.79	3.59	3.81	3.94	4.01	3.94
Euro-dollars	4.66	6.94	10.80	11.34	11.73	13.37	12.70	14.41	13.77	14.87	16.13

Treasury bill rates

bond-equivalent yields, at or near end of month

	1976	*1977*	*1978*	*1979*					*1980*		
	Dec	*Dec*	*Dec*	*Aug*	*Sep*	*Oct*	*Nov*	*Dec*	*Jan*	*Feb*	*Mar*
United States	4.41	6.33	9.42	9.97	10.62	12.37	11.68	12.39	12.96	14.92	15.85
Canada	8.14	7.17	10.46	11.45	11.64	13.61	13.62	13.66	13.50	13.55	15.24
Japan	5.68	4.15	3.39	5.17	5.17	5.17	5.17	5.68	5.68	5.68	5.68
Australia	8.73	8.35	8.35	9.02	9.02	9.02	9.02	9.31	9.33	9.52	10.77
United Kingdom	13.98	6.42	12.01	13.78	14.01	13.93	16.75	16.45	16.93	16.71	16.95
Belgium	10.00	9.25	9.25	12.00	13.00	14.00	14.30	14.40	14.40	15.00	17.50
Ireland	14.28	6.74	11.83	13.60	13.56	13.72	16.36	16.37	16.08	16.45	16.76
Italy	17.38	12.81	12.81	11.62	11.62	12.93	13.05	15.62	13.17	15.43	15.42
Netherlands	5.63	6.00	9.50	9.00	9.00	9.50	14.00	12.75	10.75	10.50	10.75
Sweden	9.75	9.21	5.84	6.60	6.60	8.70	9.74	9.74	10.79	10.79	10.78
Brazil	38.58	38.08	41.21	37.26	36.34	31.48	27.33	27.84	24.62	23.85	25.90
Korea	n.a.	16.88	17.01	19.53	19.53	19.53	19.53	19.53	22.01	22.01	22.01
Mexico	n.a.	n.a.	12.75	15.32	15.58	15.95	16.85	17.89	18.71	19.30	n.a.
New Zealand	4.00	7.50	10.50	10.60	10.60	11.25	11.25	11.25	11.25	11.25	11.25
Philippines	9.78	10.04	12.05	12.77	12.70	12.68	12.64	12.63	12.56	12.33	12.31
Singapore	2.99	3.17	4.01	5.25	5.73	5.70	5.65	6.18	6.77	6.74	6.92
South Africa	7.94	8.17	7.61	4.56	4.49	3.97	3.90	4.30	4.29	4.38	4.39

Representative money-market rates

bond-equivalent yields on major short-term (mostly 3-4 month) money-market instruments, other than Treasury bills, at or near end of month

	1976	*1977*	*1978*	*1979*					*1980*		
	Dec	*Dec*	*Dec*	*Aug*	*Sep*	*Oct*	*Nov*	*Dec*	*Jan*	*Feb*	*Mar*
United States	4.75	6.84	10.57	11.26	11.95	14.72	12.90	13.70	13.49	15.45	17.75
Canada	8.62	7.25	10.62	12.00	11.90	14.62	13.65	14.15	13.80	13.75	16.00
Japan	6.75	5.89	4.64	6.41	7.12	6.97	8.14	8.01	8.02	9.86	12.70
Australia	9.75	9.75	9.10	10.20	10.30	10.65	10.50	10.30	10.30	10.40	11.75
United Kingdom	14.38	6.50	12.50	14.12	14.06	14.75	16.81	17.00	17.75	18.31	18.19
Belgium	10.50	9.50	9.25	12.00	12.50	14.10	14.35	14.45	14.50	15.00	17.50
France	10.00	9.19	6.44	11.37	11.62	12.50	12.37	12.62	12.19	13.62	13.62
Germany	4.80	3.60	3.70	7.45	7.90	9.75	9.50	8.70	8.85	9.50	10.40
Ireland	14.69	6.75	13.00	17.62	17.62	17.50	17.75	18.12	18.00	18.37	19.12
Italy	16.63	11.75	11.37	11.62	11.62	12.75	13.62	17.12	17.75	17.62	17.87
Netherlands	5.88	6.25	10.50	9.62	9.87	10.75	14.75	13.00	11.37	12.87	11.25
Spain	11.36	12.06	22.80	18.80	15.70	11.60	12.80	13.20	13.40	13.40	15.50
Switzerland	1.84	2.02	0.50	2.12	1.62	3.62	4.50	6.12	6.00	5.25	7.37
Hong Kong	5.50	5.73	11.82	13.45	13.12	12.75	13.25	14.37	15.37	15.50	15.87
Korea	16.99	16.88	17.01	19.53	19.53	19.53	19.53	19.53	22.01	22.01	22.01
New Zealand	10.37	11.87	12.00	15.50	15.00	16.00	16.25	16.00	16.20	15.75	16.00
Philippines	15.47	11.96	11.48	10.13	9.94	10.01	10.13	10.41	10.33	9.99	11.49
Singapore	3.75	4.81	7.38	8.25	8.75	8.25	8.25	10.12	10.12	10.25	11.50
South Africa	9.73	9.00	7.85	5.03	4.93	4.30	4.12	4.72	4.61	4.93	5.03

Commercial bank deposit rates

at or near end of month

	1976	1977	1978	1979					1980		
	Dec	Dec	Dec	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
United States	4.70	6.80	10.90	11.35	12.10	14.50	13.20	13.55	13.40	15.55	18.00
Canada	8.00	7.25	10.45	11.80	11.90	14.50	13.40	14.05	13.70	13.75	15.50
Japan	4.50	3.25	2.50	4.00	4.00	4.00	4.00	4.00	4.00	4.00	4.00
Australia	9.75	9.50	8.50	9.70	9.90	10.00	10.15	10.25	10.40	10.50	12.35
United Kingdom	14.13	6.37	12.25	14.19	14.06	14.62	16.75	16.81	17.50	17.75	18.12
Belgium	10.00	9.50	9.87	12.13	13.00	14.37	14.63	14.50	14.50	15.12	17.50
France	9.50	9.00	6.50	11.25	11.50	12.50	12.75	12.50	12.25	12.75	12.50
Germany	4.20	3.40	3.50	6.50	7.00	8.25	8.25	7.75	8.00	8.50	9.25
Italy	17.00	17.00	12.50	12.50	12.50	13.02	12.50	13.25	13.25	13.25	13.20
Netherlands	6.13	7.00	11.62	10.12	10.25	11.00	15.00	13.50	12.00	13.00	11.75
Austria	n.a.	9.00	6.75	7.37	8.25	8.75	8.50	8.50	8.75	8.75	9.75
Denmark	9.00	8.00	7.00	8.00	10.00	10.00	10.00	10.00	10.00	12.00	12.00
Finland	5.75	4.25	3.25	3.25	3.25	3.25	4.25	4.25	4.25	5.00	5.00
Ireland	n.a.	6.87	12.75	17.37	17.25	17.25	17.50	17.87	18.00	18.00	19.12
Norway	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Spain	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Sweden	7.75	7.75	6.25	6.75	6.75	7.75	8.75	8.75	9.75	9.75	9.75
Switzerland	1.50	1.12	0.12	1.25	1.00	2.25	3.75	4.75	4.75	4.75	6.75
Brazil	45.60	39.60	46.80	40.80	40.68	42.12	43.20	45.00	45.48	43.68	44.76
Hong Kong	3.25	1.75	4.50	9.25	9.25	9.25	9.25	9.25	9.25	9.25	10.50
Korea	15.00	13.20	15.00	15.00	15.00	15.00	15.00	15.00	19.20	19.20	19.20
Mexico	9.50	9.50	12.00	12.34	13.68	15.13	16.80	16.75	17.35	18.15	n.a.
New Zealand	10.25	11.00	12.00	14.75	14.50	15.50	15.75	15.90	15.80	14.25	14.00
Philippines	8.50	8.50	8.50	8.50	8.50	8.50	8.50	10.50	10.50	10.50	10.50
Singapore	3.75	5.31	7.31	8.12	8.44	8.31	8.12	10.31	10.38	10.75	11.81
South Africa	9.75	8.70	7.30	4.87	4.75	4.10	4.00	4.82	4.40	4.75	4.68
Venezuela	8.00	7.00	7.25	13.50	13.50	13.50	15.00	15.00	15.00	15.00	17.00
Euro-dollars	5.00	7.19	11.69	12.12	12.75	15.69	14.00	14.44	14.37	16.94	19.69

Commercial bank lending rates to prime borrowers

at or near end of month

	1976	1977	1978	1979					1980		
	Dec	Dec	Dec	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
United States	6.00	7.75	11.75	12.75	13.50	15.00	15.50	15.25	15.25	16.75	19.50
Canada	9.25	8.25	11.50	12.50	13.00	14.75	15.00	15.00	15.00	15.00	16.50
Japan	7.42	5.47	4.50	5.38	5.68	5.86	6.16	6.51	6.80	7.00	7.25
Australia	11.50	11.50	11.00	10.75	10.75	10.75	10.75	10.75	11.25	11.25	12.25
United Kingdom	15.50	8.00	13.50	15.00	15.00	15.00	18.00	18.00	18.00	18.00	19.00
Belgium	11.75	10.00	10.00	12.50	13.25	14.00	14.75	15.25	15.50	16.50	18.75
France	11.65	11.35	10.95	12.20	12.50	12.65	13.65	13.65	13.65	14.65	14.65
Germany	6.50	6.00	5.50	7.75	8.25	8.75	9.75	9.75	9.75	9.75	10.50
Italy	21.00	16.00	15.00	15.00	15.00	16.50	16.50	19.50	19.50	19.50	19.50
Netherlands	8.50	7.00	12.00	11.00	11.00	11.37	15.00	15.00	13.25	14.25	13.25
Austria	n.a.	9.75	8.75	8.00	8.00	8.50	8.50	8.50	9.50	9.50	9.50
Denmark	14.00	12.50	10.00	11.00	13.00	13.25	13.75	13.75	13.75	15.75	15.75
Finland	9.71	8.85	7.87	7.83	7.85	7.85	8.98	9.06	9.08	n.a.	n.a.
Ireland	13.25	7.50	13.00	15.50	15.50	15.50	15.50	15.50	15.50	15.50	15.50
Norway	8.33	8.33	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
Spain	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
Sweden	10.25	10.25	8.50	8.75	8.75	9.75	10.75	10.75	11.75	11.75	11.75
Switzerland	7.50	6.75	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Brazil	30.00	52.05	61.70	63.00	57.00	57.00	57.00	57.00	57.00	57.00	57.00
Hong Kong	6.00	4.75	8.75	14.50	14.50	14.50	14.50	14.50	14.50	14.50	16.00
Korea	17.00	15.00	18.50	18.50	18.50	18.50	18.50	18.50	24.50	24.50	24.50
Mexico	15.50	17.00	17.50	17.50	17.50	19.00	19.00	19.00	19.00	19.00	21.39
New Zealand	7.50	8.50	9.75	11.25	11.25	10.75	12.00	11.75	12.00	12.75	12.75
Philippines	14.00	14.00	14.00	14.00	14.00	14.00	14.00	16.00	16.00	16.00	16.00
Singapore	6.78	7.02	7.65	8.78	8.92	9.10	9.18	9.50	10.25	10.55	11.28
South Africa	12.50	12.50	11.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50
Venezuela	9.50	9.50	10.25	11.50	11.50	11.50	13.00	13.00	13.00	13.00	14.00
Euro-dollars	5.50	7.56	12.06	12.49	13.12	16.06	14.37	14.81	14.74	17.31	20.06

Domestic government bond yields

long-term issues, at or near end of month

	1976	1977	1978	1979					1980		
	Dec	Dec	Dec	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
United States	7.20	7.97	9.00	9.05	9.28	10.50	10.09	10.20	11.11	12.60	12.50
Canada	8.47	8.77	9.68	10.15	10.38	11.16	10.94	11.32	12.13	12.91	13.20
Japan	8.61	6.40	6.40	8.14	8.04	8.46	8.78	8.63	8.56	9.17	9.76
Australia	10.50	9.50	8.90	10.15	10.15	10.30	10.40	10.45	10.65	11.50	11.75
United Kingdom	14.31	10.53	12.75	11.76	12.05	12.72	13.98	13.83	13.30	13.89	13.98
Belgium	9.30	8.76	8.80	9.80	9.90	10.58	11.00	11.13	11.42	11.93	12.45
France	11.04	11.07	9.94	11.67	11.56	11.60	12.09	12.59	12.52	14.11	14.44
Germany	7.28	5.52	6.65	7.66	7.65	8.07	7.81	7.91	8.13	8.86	9.72
Italy	13.92	10.82	10.89	10.64	10.81	11.26	11.31	11.28	11.39	11.56	11.63
Netherlands	8.40	8.11	8.48	8.73	8.77	8.83	9.18	9.29	9.41	10.37	11.45
Austria	8.55	9.00	7.91	8.19	8.22	8.26	8.27	8.20	8.20	8.51	n.a.
Denmark	14.57	16.83	17.27	17.35	17.76	17.80	18.04	18.28	18.55	19.71	20.37
Finland	10.92	10.25	9.19	9.41	9.53	9.34	9.49	9.58	9.94	10.13	10.38
Ireland	15.49	11.30	13.44	15.92	15.72	16.64	16.64	16.64	15.95	15.95	15.95
Norway	7.25	8.37	8.19	8.32	8.25	8.28	10.19	10.04	10.10	10.15	10.20
Sweden	9.61	9.84	10.09	10.44	10.49	11.01	11.04	11.22	n.a.	n.a.	n.a.
Switzerland	4.43	3.75	3.03	3.51	3.50	3.63	4.04	4.20	4.48	5.03	5.09
New Zealand	8.70	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Philippines	13.41	13.40	13.40	13.40	13.40	13.30	13.30	13.20	13.40	13.40	13.40
South Africa	11.00	10.75	9.85	9.55	9.40	9.29	9.34	9.44	9.38	9.33	9.32
Venezuela	7.04	7.24	7.24	7.35	7.36	7.35	7.33	7.29	7.38	7.25	7.33

Domestic corporate bond yields

long-term issues, at or near end of month

	1976	1977	1978	1979					1980		
	Dec	Dec	Dec	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
United States	7.35	8.30	9.25	9.45	9.70	11.00	10.50	10.75	11.88	12.88	13.75
Canada	9.58	9.71	10.34	10.85	11.09	11.97	11.72	12.07	12.80	13.35	13.90
Japan	8.81	6.68	6.94	7.75	7.79	8.11	8.34	8.34	8.12	8.12	8.75
Australia	12.00	11.00	10.25	11.25	11.15	11.40	11.65	11.65	11.90	12.60	12.75
United Kingdom	15.96	11.88	13.53	12.64	12.88	13.40	14.89	14.96	14.25	14.55	14.99
Belgium	11.88	9.85	9.56	10.83	10.92	11.34	11.70	11.93	11.82	12.22	n.a.
France	11.39	12.09	10.27	12.03	11.88	11.84	12.33	12.92	12.91	14.57	14.80
Germany	7.47	5.92	6.80	7.80	7.80	8.00	8.40	8.20	8.10	8.50	9.60
Italy	16.90	10.71	10.12	10.04	9.92	9.99	9.90	10.22	10.22	10.56	11.12
Netherlands	8.22	7.90	8.62	8.96	8.82	9.10	9.50	9.95	9.78	10.54	12.05
Norway	7.65	8.59	8.37	8.54	8.63	n.a.	10.94	10.53	10.71	10.75	10.80
Spain	10.86	11.58	12.17	12.04	12.04	11.54	11.40	11.77	11.34	11.18	11.19
Sweden	9.82	9.83	10.03	9.59	9.65	9.75	9.81	10.21	10.43	10.78	10.85
Switzerland	5.50	4.96	4.85	5.24	5.27	5.28	5.44	5.53	5.61	5.63	6.06
Korea	21.70	19.60	24.00	29.20	29.20	29.20	31.00	32.50	32.50	31.00	31.00
Mexico	15.56	17.56	20.37	21.01	21.57	21.63	22.43	21.99	23.00	23.55	n.a.
Venezuela	10.37	10.39	12.43	12.71	13.35	13.59	14.06	14.55	13.63	13.87	14.86

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World Financial Markets

Morgan Guaranty Trust Company of New York

May, 1980

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Foreign exchange market developments

The dollar weakened again in the latter part of May as U.S. interest rates resumed their decline. The latest weakening, however, has been fairly modest compared with the dollar's earlier rapid decline against major European currencies and the yen from the highs reached early in April, when U.S. interest rates were at their peak. Although exchange market intervention by the central banks to stem the dollar's decline has stepped up lately, for the most part it has been moderate in scale when contrasted with the very heavy intervention that sought to curb the dollar's sharp rise earlier this year.

On a trade-weighted average, or effective, basis, the dollar on May 27 was about 8% below its early April high. As Table 1 shows, in terms of individual currencies, the dollar has depreciated the most since early April in relation to the yen (16%), followed by its value against the Swiss franc (12%), the German mark (10%), and other major European currencies. The dollar is still above its lows recorded in late-September 1979 *vis-à-vis* the principal continental European currencies. It is relatively unchanged against the Canadian dollar, and about 2% below its end-September rate against the yen, and down about 8% against the pound.

The dollar has weakened because of the plunge in U.S. interest rates and the rapid shifts of interest differentials. U.S. money market rates are now eight-to-nine percentage points below their peaks in early April. U.S. long-term rates are generally more than two percentage points below their earlier highs. This sharp fall in U.S. rates has resulted in the reversal of the interest differentials favoring the dollar or, in the case of Switzerland, a pronounced narrowing. As shown in Table 2, short-term interest rates for other Euro-currencies also have eased in the past month and a half, notwithstanding hikes in the Bundesbank's discount and Lombard rates at the beginning of May. Nonetheless, rates for other Euro-currencies (except the Swiss franc) are now above Euro-dollar rates. Comparing present interest rate levels with those prevailing last fall, short-term Euro-dollar rates are more than three percentage points lower, whereas other Euro rates in many cases are higher by several percentage points.

These pronounced shifts in interest rate relationships have triggered capital flows, including a pickup in

Table 1

Dollar exchange rates

in foreign currency units per dollar, except Canadian dollar and British pound that are in U.S. cents per foreign currency unit

	Sep 28 1979	*Apr 7 1980*	*May 27 1980*
Canadian dollar	86.2c	84.1c	86.3c
Japanese yen	224.5	260.8	219.2
British pound	220.0c	213.4c	237.7c
German mark	1.74	1.97	1.77
Swiss franc	1.55	1.87	1.64
French franc	4.09	4.54	4.10
Italian lira	801.5	910.8	829.5

Table 2

Three-month Euro-currency deposit rates

percent per annum

	Sep 28 1979	Apr 7 1980	May 27 1980
U.S. dollar	12.75	19.69	9.37
Canadian dollar	11.81	15.62	10.81
Japanese ye	7.31	15.25	12.37
British pound	14.06	18.44	16.87
German mark	7.44	10.19	9.56
Swiss franc	1.75	6.87	5.37
French franc	13.25	14.00	12.69

Table 3

U.S. trade and current account[a]

in billions of dollars

	1979	1980
Merchandise trade[b]	—29	—41
Fuels	—57	—85
Agriculture and other raw materials	18	25
Manufactures	9	19
Net invisibles	29	34
Travel	—2	—2
Investment income	33	37
On direct investment	32	36
Other services	5	5
Transfers	—6	—6
Current account	0	—7

a totals may not add because of rounding
b balance-of-payments basis

reserve diversification from the dollar into other currencies. Sizable inflows of private and official funds into free yen deposits and Japanese securities, especially from Middle East sources, have been reported over the past month or so as U.S. and Euro-dollar interest rates dropped below Japanese rates. Inflows into marks, Swiss francs, and to a lesser extent French francs and a continued buildup in nonresident sterling balances also have been in evidence. Nonresidents' sterling deposits in U.K. banks, for example, rose by the equivalent of approximately $1¾ billion in the three months to mid-April, and since then have gone up further. Part of this increase may well reflect official sterling deposits in other Euro centers that are redeposited in the United Kingdom.

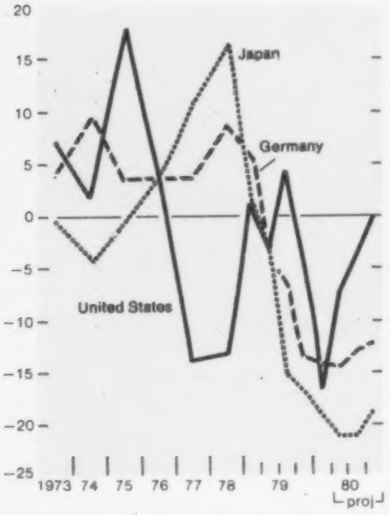
This diversification need not be disruptive in foreign exchange markets, as pointed out in earlier issues of this publication. The use of mechanisms for conducting direct transactions with foreign official institutions, such as Germany's special security issues and Japan's off-market transactions in outstanding securities, can be useful in containing potential exchange rate pressures arising from reserve diversification. As another form of exchange market intervention, special facilities for channeling reserve diversification could make an important contribution to exchange rate stability in the event that diversification flows exceed the financing needed to cover current account imbalances. Now that the proposed IMF Substitution Account has been set aside indefinitely, greater use of such special arrangements by the various reserve currency centers may be necessary to develop a stable multiple reserve currency system.

That the dollar has held up as well as it has during recent weeks in the face of an unexpectedly rapid and steep plunge in U.S. interest rates and in the absence of frequent large-scale exchange market intervention can be attributed to several supportive factors. One such factor is the relatively favorable current account prospect for the United States. As shown in the chart, the U.S. current account balance, which moved into a deficit of approximately $16 billion at a seasonally adjusted annual rate in the first quarter of 1980, is expected to move toward equilibrium by year-end. This prospect contrasts very favorably with the outlooks for the German and Japanese current accounts, which also are deeply into deficit and are expected to remain in deficit much longer than the U.S. current account. The German and Japanese payments performance and prospects are discussed in following articles.

Like the trade accounts of most other industrial countries, the U.S. trade account is being adversely affected by sharply higher oil prices — including the latest round of OPEC price hikes, which brought the weighted-average OPEC selling price to nearly $32 per barrel. However, the increase in the U.S. oil import bill this year will be checked by an expected reduction of one million barrels per day, or nearly 13%, in U.S. net oil import volume. This reduction reflects an anticipated 5% drop in U.S. oil consumption brought about not only by recession but also by conservation induced by higher prices, including the phased decontrol of prices for domestically produced oil. Offsetting much of the expected $85 billion or so of net fuel imports this year will be large and growing surpluses on agricultural trade and on net invisibles transactions, and a substantially increased surplus on manufactures trade (see Table 3).

In addition to the relatively favor-

Current account balances
in billions of dollars, at seasonally adjusted annual rates



able U.S. current account prospect, the dollar is benefiting from a cooling of the intense inflationary psychology that was prevalent only a few months ago. It is now widely expected that the rate of inflation in the United States as measured by the consumer and producer price indices, which rose at annual rates of 17% in the first quarter of 1980, will subside to single digits in the second half of this year. The multiplying signs of weakness in the economy and the single-digit increase in the producer price index for the month of April lend support to these expectations of diminished inflation. Last month consumer price inflation dropped to 12% at an annual rate. The strong expectation that it will decelerate further is based on the likelihood that the rate of increase in energy prices (39% annually in the six months to April) and in home purchase and finance (30% annually) will slow sharply later this year. These two components account for about 30% of the CPI. The rate of increase for other items in the CPI is still below 10%. Thus, the U.S. inflation differential, which had been quite adverse, could narrow substantially over the next year as U.S. inflation subsides to rates that will be close to the average of those projected for major trading partners.

Nonetheless, the underlying rate of inflation in the United States, represented by the anticipated 9% or so increase in unit labor costs in the private nonfarm economy, will remain excessive. In this context, it will be important that the Federal Reserve adhere to its commitment to fight inflation and to avoid the excessive swings toward monetary ease that have accompanied most previous recessions. But, monetary discipline alone will not be sufficient to bring down the underlying rate of inflation. Government expenditure restraint also will be needed to ensure moderation in incomes. In addition, measures to increase productivity, such as steps to encourage research and development, to promote capital investment, and to remove regulatory hindrances, will be required to bring down the underlying rate of inflation.

Germany's payments prospects

Last year Germany experienced a dramatic $14½ billion worsening of its current account balance. There was a deficit of nearly $6 billion, easily the largest since World War II. This deterioration was almost equally distributed between merchandise and invisibles. The merchandise trade surplus narrowed by $8½ billion, while the deficit on invisibles transactions soared $6 billion. The payments deterioration continued into the first quarter of 1980, when the current account deficit reached nearly $14 billion at a seasonally adjusted annual rate. The deficit is expected to remain close to $13 billion for the whole of this year, and a return to equilibrium is not likely before 1982.

Oil and raw materials

The deterioration in the merchandise trade balance last year was mainly the result of the $10 billion rise in the value of net oil imports, to $25 billion. Oil consumption in Germany, spurred by the 4½% increase in real GNP in 1979, rose about 3%. The volume of net oil imports climbed 4¾%, partly because of a substantial buildup in oil stocks. Moreover, the per-barrel oil price increase amounted to nearly 60%. Most other large industrial countries experienced increases of 40% or less. The above-average rise in the price of German oil imports resulted mainly from continu-

Table 4

Germany: trade and current account

in billions of dollars

	1973	1978	1979	1980
Trade balance, customs basis, FOB/CIF	12.7	20.7	12.2	5.5
Fuels	—4.5	—14.9	—25.3	—36.1
Food	—6.3	—10.1	—10.7	—11.5
Other raw materials	—4.6	—7.1	—9.0	—9.5
Manufactures	28.1	52.8	57.2	62.5
Trade balance, payments basis, FOB/FOB	15.2	25.5	17.1	10.6
Net invisibles	—11.6	—16.8	—22.8	—24.0
Travel	—4.1	—9.6	—12.2	—14.0
Military	2.7	4.4	5.0	5.3
Investment income	0.6	2.3	2.3	2.2
Private transfers	—3.5	—4.2	—5.2	—4.7
Official transfers	—2.4	—4.5	—6.1	—5.5
EC	—0.8	—1.0	—2.1	—1.5
Other invisibles	—4.9	—5.2	—6.6	—7.3
Current account balance	4.6	8.7	—5.7	—13.4

Table 5

Energy use and oil imports

	Year	Germany	Japan
Energy use per unit of output[a] (index numbers, 1973=100)	1978	92	86
	1979	93	83
Oil consumption as percent of total energy use	1973	62	76
	1978	58	72
	1979	57	71
Net oil import volume in millions of bpd	1973	2.87	5.55
	1978	2.76	5.33
	1979	2.89	5.63
	1980	2.84	5.60
Unit value (CIF) of gross oil imports in dollars per barrel	1978	15.50	13.70
	1979	24.50	19.30
	1980	35.50	33.00
Value of net oil imports in billions of dollars	1973	5.1	6.8
	1978	14.7	26.7
	1979	25.0	39.5
	1980	35.6	67.6

[a] ratio of oil-equivalent energy use to real GDP

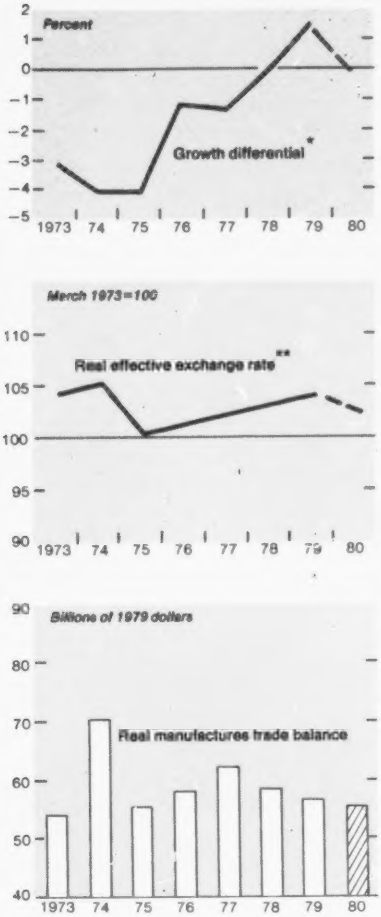
ing heavy reliance on the then much more expensive spot oil market.

In 1980, Germany's net oil import bill is likely to climb another $11 billion, to more than $36 billion. This would be a smaller increase in percentage terms than those expected for most other major industrial countries, principally because the differentials between spot and official prices will be much lower than in 1979. In 1980 Germany's net oil import volume is expected to decline slightly, partly because stockbuilding has tapered off, economic growth will be slower than in 1979, and the winter was mild.

There was relatively slow progress in conservation until fairly recently. This was in large measure because of the limited rise in real prices for oil and products in Germany after 1973, due in part to appreciation of the mark *vis-à-vis* the dollar. However, German petroleum prices began to rise much more sharply last year. For example, gasoline prices including taxes rose only about 30% between 1973 and 1978, compared with a 28% increase in the overall consumer price index. Although gasoline prices had increased by an additional 17% as of January 1980, or 9½% faster than overall prices, the resulting real increase still was much smaller than that in the United States during the same period. Delays in the nuclear program and reluctance on environmental grounds to reemphasize coal have slowed efforts to substitute other energy sources for oil. But there has been greater movement in these areas in the past year. During the 1980s very considerable substitution should occur, to the benefit of Germany's foreign trade balance.

Germany has had a steadily widening deficit on trade in food. Last year the deficit rose by about $½ billion, to $10¾ billion. Net nonfood raw materials imports rose by about

Germany: growth rate differential, competitiveness, and real manufactures trade balance



* growth differential: percent change in the ratio of domestic GDP to export-weighted foreign GDP

** latest plotting May 27

$2 billion in 1979, to $9 billion. The sizable increase was related to the strong rise in industrial production and substantial stockbuilding, some of it strategic in nature because of uncertainties about supplies from southern Africa. There should be a more gradual increase in the net deficit in 1980, to perhaps $9½ billion, because of slowing German economic growth, diminished stockpiling, and a weaker trend in world commodity prices.

Manufactures trade

Germany's surplus on manufactures trade last year rose only a little, by $4½ billion, and declined in real terms. Exports to industrial countries and non-OPEC LDCs grew an appreciable 25%, but exports to communist countries grew more slowly, and those to OPEC countries dropped, mainly because of the loss of major supply contracts with Iran and because of Nigeria's temporary cutback in imports. Iran and Nigeria had been significant markets for Germany.

Germany's manufactures exports face several structural problems. Capital goods exports, one half of total German exports, have been dampened in recent years by the relatively slow growth in industrial countries and by the particular weakness in spending on plant and equipment. This situation contrasts with that in the period of the early to mid-1970s, when capital expenditure abroad was buoyant and German exporters were stretched to meet the demand. In the next few years German industry expects a strong rise in orders for certain types of capital goods, such as those embodying energy-saving technology, an area of German expertise. Nevertheless, overall foreign demand for German capital goods is expected to grow only moderately.

A second constraint on manufactures exports has been the shift of a larger proportion of the production of German industry to subsidiaries abroad, occasioned by the rapid growth in real domestic wages and the rise in the mark exchange rate in the 1970s. Between 1970 and 1979 Germany's unit labor costs rose by 25% more than those of other industrial countries, after adjustment for changes in exchange rates. The tendency to produce more outside the country, which has been especially evident in the case of the chemical and auto industries, is expected to persist. While German direct investment abroad may also help to promote some exports or to prevent the loss of some markets, the net result appears to be a dampening of German export growth.

In addition, Germany's exports are oriented toward areas of relatively slow economic growth and sluggish import demand. Its exports are more heavily weighted than those of most other industrial countries to North America and to Western Europe, and less so to rapidly expanding developing countries. This is related to both the heavy emphasis on capital goods and Germany's lack of ties with former colonies. Germany may begin to regain some of the lost ground in shipments to OPEC countries by next year, but a substantial overall geographical disadvantage seems likely to persist for some time to come. Although growth in LDCs is slowing, it still is likely to remain well above that of OECD countries. Further, the rapid growth in COMECON country imports that was seen in the past is fading; this will adversely affect Germany, which has sent a larger proportion (5%) of its total exports to the area than have other Western countries.

There are other important factors which have adversely affected the German trade balance. One of these

Table 6

Growth and trade, 1973-1979

annual average percent changes

	Germany	*Japan*
Real GDP		
Domestic	2.3	4.5
Export markets	4.0	4.9
Differential	—1.7	—0.4
Volume of imports		
Oil	—0.4	0.2
Other	6.2	2.7
Volume of exports		
Total	4.1	7.5
Volume of exports to:		
Western Europe		
EC	4.5	8.1
Other Europe	2.7	—0.1
United States	0.2	7.5
Japan	1.6	0.0
Other industrial countries	0.2	1.0
OPEC	16.0	18.0
Non-OPEC LDCs	3.7	5.7
Eastern Europe and China	3.9	12.5

is the cumulative effect of a lessening of German price competitiveness in world markets. The competitive weakening was particularly notable during the period 1970-73, when the mark appreciated sharply. However, the phenomenon continued into last year. While there has been virtually no sustained change since 1973 in the real effective mark exchange rate, because relatively slow domestic price inflation has offset the further nominal effective appreciation of the mark, German companies' profitability has nevertheless diminished because their unit labor costs have risen more rapidly than their selling prices. This has affected adversely the ability or willingness of German producers to meet foreign competition.

Another adverse factor is the cyclical situation. Following the 1978 fiscal stimulus program, growth has been relatively robust. Real GNP advanced about 4½% in 1979 and about 5% at an annual rate in the first quarter of 1980. German utilization of industrial capacity has remained at a high level, and the international growth gap has persisted (see chart). A slowdown is expected in Germany later this year, but there may well be some weakening abroad so that German relative growth still will be well above the 1973-79 average. Thus, although export orders grew strongly in the first quarter of 1980, the prospect of a continuing adverse growth gap weighs against improvement in German manufactures trade. Taking all of these considerations into account, the manufactures trade surplus is likely to show only a moderate increase this year and may continue to drop in real terms (see chart and Table 4). All in all, it appears that Germany's overall merchandise trade surplus will shrink by a further $6½ billion in 1980, to about $10½ billion (FOB/FOB).

Invisibles

Another adverse factor has been the huge rise in Germany's deficit on invisibles transactions. Germany, along with Japan and Canada, is one of the few major industrial countries with a large invisibles deficit. Germany's deficit doubled between 1973 and 1979. In 1979 alone net travel expenditures abroad increased by $2½ billion, partly as a consequence of rapid growth in real incomes and more liberal vacation entitlements. Last year foreign companies' subsidiaries in Germany also stepped up their repatriation of earnings, and the government wrote off the debts to Germany of some of the poorest developing countries, which reduced German interest receipts. A sharp rise in workers' remittances to Turkey and a bunching of German payments to the EC also were negative factors last year.

In 1980, deterioration of the overall invisibles balance should be much more moderate. Net tourism outlays probably will increase less rapidly than in 1979. Net transfer payments may well recede temporarily, largely because of a normalization of German contributions to the EC. In the longer term, however, a continued worsening of the invisibles deficit is to be expected. According to one German analyst, for example, German net outlays on tourism alone may rise from about $12 billion in 1979 to $22 billion in 1985, and the deficit on total services transactions from about $11½ billion to $21½ billion at the current exchange rate.

A German current account deficit on the order of the $13-$14 billion expected for this year is appropriate in the light of Germany's relative cyclical strength and the large OPEC current account surplus, which is expected to exceed $110 billion in 1980. Since the OPEC surplus is likely to remain large for

Table 7

Geographic distribution of export markets, 1979

in percent

	Shares in exports of: Germany	Shares in exports of: Japan	Annual average import volume growth for major market areas, 1973-1979[a]
Market areas:			
Western Europe	67.1	16.0	5.1
EC	48.3	12.3	5.8
Other Europe	18.8	3.7	3.3
United States	6.6	25.8	4.4
Japan	1.3	0.0	1.5
Other industrial countries	1.9	4.8	1.3
OPEC	6.5	13.1	15.2
Non-OPEC LDCs	10.6	33.3	5.4
Eastern Europe and China	6.0	7.0	6.9
	100.0	100.0	

[a] measured by volume of imports from Germany, France, Italy, United Kingdom, Japan, United States.

several years, the continuation of a sizable German deficit would be desirable as a means of helping to achieve a reasonable sharing of the payments burden among non-OPEC countries.

The mark

A sizable deficit does not necessarily imply a weak mark. The deficit can be financed by capital inflows attracted by Germany's relatively high real interest rates and, if necessary, by further direct borrowing abroad by the government. Moreover, even though Germany needs to increase its manufactures trade surplus in order to offset prospective rises in net oil imports and the net invisibles deficit, it should be possible to accomplish this without significant movement in the exchange rate.

There is a reasonable prospect that Germany's price competitiveness will improve because domestic inflation, although currently rather rapid by German standards, is expected to remain slow in an international context. Productivity in the total economy has continued to grow at an average rate of more than 4% per annum since 1973. This is only a moderately slower rate of advance than the 5¼% average annual gain during 1960-73 in Germany, and it is better than in most other industrial countries. Even though wage increases are averaging 7% this year, the rise in unit labor costs may be limited to about 3%-4%.

The main source of inflationary pressures continues to be oil prices and, to a lesser extent, prices of other imported commodities. The overall import price index rose by 25% in the twelve months to February 1980 and by 7½% in the latest three months alone. Despite these pressures the outlook for German inflation is relatively favorable because of a shift from a stimulative to a modestly restrictive fiscal policy and a tightening of monetary policy. Thus, Germany's international price differential should remain quite favorable over the next twelve months. This would seem to be compatible with the maintenance of a fairly stable real effective mark rate at around its present level and with only marginal movement in the nominal effective rate.

Japan's payments prospects

Last year, Japan's current account balance recorded the largest swing of any industrial country, moving to a deficit of $8½ billion from a surplus of $16½ billion in 1978 (see Table 8). This swing mainly stemmed from a $22½ billion reduction in Japan's trade surplus (FOB-FOB), from $24½ billion in 1978 to only $2 billion in 1979. Japan's trade balance has continued to deteriorate so far in 1980

Table 8

Japan: trade and current account

in billions of dollars

	1973	*1978*	*1979*	*1980*
Trade balance, customs basis, FOB/CIF	—1.4	18.5	—7.6	—17.5
Fuels	—8.2	—31.1	—44.9	—73.5
Food	—5.9	—10.4	—13.2	—13.7
Other raw materials	—11.5	—14.2	—20.9	—21.3
Manufactures	24.2	74.2	71.5	91.0
Trade balance, payments basis, FOB/FOB	3.6	24.6	2.0	—6.5
Net invisibles	—3.7	—8.1	—10.7	—13.5
Transport	—1.8	—2.5	—4.4	—5.7
Travel	—1.0	—3.2	—4.2	—4.8
Investment income	0.5	0.9	2.0	1.5
Other services	—1.2	—2.5	—2.8	—3.0
Transfers	—0.3	—0.7	—1.1	—1.5
Current account balance	—0.1	16.5	—8.7	—20.0

and was in deficit at more than a $7 billion annual rate in the first four months of this year. This helped to push Japan's current account deficit in the January-April period to nearly $20 billion at a seasonally adjusted annual rate.

Oil

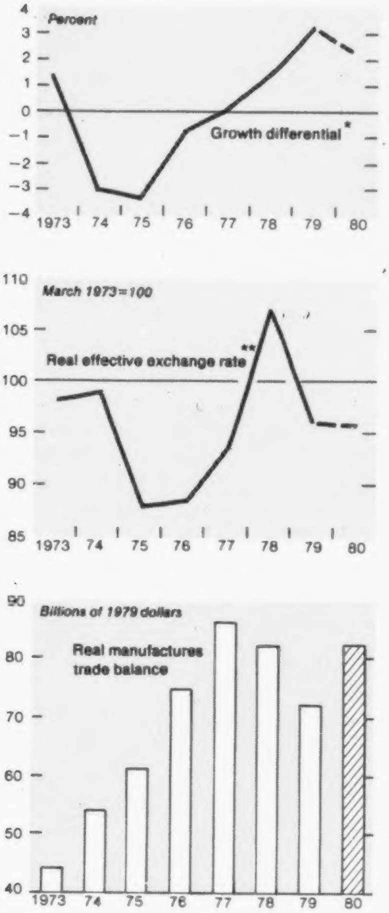
Roughly half of the deterioration in Japan's current account balance last year was due to higher oil imports (see Table 5). The average CIF import price climbed to $19.30 per barrel from $13.70 per barrel in 1978, or more than a 40% increase. Coupled with a 5% increase in oil import volume, Japan's net oil import bill (including refined products and liquified petroleum gas) rose by about $13 billion last year to $40 billion, while the net fuels deficit reached $45 billion.

The deficit on the fuels account is expected to climb above $73 billion this year, with net oil imports rising to $67 billion, assuming an average oil import price (CIF) of $33 per barrel. Domestic oil consumption is expected to rise by 1.6% in the current fiscal year that began on April 1, compared with an increase of 0.3% in 1979. Oil inventories have climbed from less than eighty days of oil consumption in the first quarter of 1979 to almost ninety days at present — a level which Japanese officials regard as adequate. The government is planning to reduce oil import volume in fiscal 1980 by 0.3% from that in fiscal 1979. Should oil consumption not slow sufficiently, the government is prepared to draw down oil inventories to meet the target for oil imports.

The government's objective over the 1981-85 period is to contain the growth of oil imports to about 3% per annum on average, while maintaining an overall rate of economic growth close to 6% per annum. This is consistent with the goal of keeping Japan's net oil import volume in 1985 to no more than 6.3 million bpd — the lower target limit set at the Tokyo summit meeting last June. Given the recent IEA reassessment of availability of OPEC oil in the mid-1980s and Japan's ranking as the second-largest oil importer in the world, even this target may have to be trimmed.

To meet its goal, Japan will have to intensify its efforts to conserve on energy usage. Since 1973 Japan has compiled one of the best records of the major industrial countries in terms of reducing its energy consumption and net oil imports per unit of output (see Table 5). This performance has been attained through realistic energy pricing policies, mandated conservation measures, and fiscal incentives designed to promote a restructuring and rationalization of Japanese industry — which consumes over 50% of total energy — toward greater fuel efficiency. The effects of these policies are apparent in the declining shares of industrial output accounted for by energy-intensive industries such as petrochemical processing, shipbuilding, and aluminum processing, and by the substantial

Japan: growth rate differential, competitiveness, and real manufactures trade balance



* growth differential: percent change in the ratio of domestic GDP to export-weighted foreign GDP

** latest plotting, May 27, 1980

progress in reducing energy input requirements in industries such as iron and steel, transport equipment, and synthetic fabrics. The rapid turnover of Japan's industrial capital stock — with an average age of less than six years — has contributed to improved fuel efficiency in both the manufacturing and nonmanufacturing sectors. Japan's transport system is also among the most fuel efficient in the world.

Yet, even with the progress to date, there is still considerable scope for further fuel conservation in some sectors of Japanese industry. A recent IMF study concluded that this will require large increases in investment outlays for energy savings, rising from the current 2% of GNP to 3%.

Japan will also have to make further progress in diversifying from oil to alternative energy sources such as coal, liquified natural gas (LNG), nuclear power, and hydro power. At present, Japan depends on oil, 99% of which is imported, to supply about 71% of its energy needs, compared with almost 76% in 1973. The ratio is still the highest among the major industrial countries, and the government's objective is to reduce the dependence on imported oil further to 63% of total energy requirements by 1985. Dependence on imported energy inputs would not decline as much, however, since LNG and most of the coal would have to be imported.

Food and raw materials

In addition to a growing fuels deficit, Japan also faces a large deficit on trade in other raw materials and foodstuffs. In 1979 the deficit on these two commodity groups widened to $34 billion — an increase of $9½ billion over the 1978 level. Japan's unit import price index for non-fuel raw materials climbed by about 25% in dollar terms last year. In addition, import volume of raw materials increased by about 10%, which was roughly in line with the 8.3% increase in industrial production.

Import volume growth of raw materials has slowed considerably since mid-1979, mainly as a result of a drawdown of raw material inventories in the manufacturing sector. There is further scope for inventory reduction this year which, together with a slowing of industrial production in the second half of 1980, could trim raw material import volume. With world commodity prices having peaked earlier this year and expected to remain soft, Japan's deficit on food and raw materials could be limited to about $35 billion.

Manufactures trade

Japan's surplus on manufactures trade amounted to $71½ billion last year, which was nearly $3 billion less than in 1978. This was the first such decline in more than a decade and was even more pronounced when expressed in constant dollars (see chart). It reflected both cyclical and competitive factors. Japan's growth rate gap widened from 1.6% in 1978 to 3.3% in 1979. The 6% increase in Japan's real GNP contributed to an 18% rise in manufactures import volume. The trade liberalization and import promotion measures taken in 1978 and early 1979 and the transfer of certain processing and assembly operations from Japan to overseas locations provided additional stimulus to imports.

The influence of the yen's 30% real effective appreciation in 1977-78 is most evident in the 1% decline in Japan's export volume growth last year. After Japan had compiled the strongest export record of the major industrial countries in the 1973-78 period, its performance last year was the poorest. Japan's manufactures exports maintained their share in a weak U.S. market, but their share declined in other industrial country markets, as well as in the non-OPEC LDCs. Nevertheless, as shown in Table 6, Japan's overall export performance since 1973 remains quite strong.

The outlook is for an increase in Japan's manufactures trade surplus this year. This mainly reflects Japan's enhanced price competitive position resulting from the yen's 18% real effective depreciation since October 1978, which has brought the yen's real effective exchange rate to within 3% of its 1973-77 average level. The effects of improved Japanese competitiveness are already apparent in the pickup of manufactures export volume and the slowing of manufactures import volume since the second quarter of 1979. In 1980, however, cyclical factors are likely to continue working in the opposite direction, with the growth rate gap projected to remain fairly large at 2½%. Except for OPEC, export demand prospects are weakening in most foreign markets, which could limit manufactures export volume growth to about 12% this year. However, the anticipated slowing of the Japanese economy in the second half of this year should help minimize the growth of manufactures imports. It should also benefit export supply capabilities by easing pressure on productive capacity. As a result, the manufactures trade surplus is expected to climb to about $91 billion this year. This implies a customs-clearance (FOB-CIF) trade balance deficit for 1980 of about $17½ billion and a trade deficit on the balance-of-payments (FOB-FOB) basis of about $6½ billion.

In addition, a $3 billion deterioration is expected in Japan's net invisibles, as a result of rising deficits on transport and travel and increased official transfers. A reduction in the surplus on Japan's net investment income is also anticipated as a consequence of the decline in Japan's net external assets. A net invisibles deficit of $13½ billion combined with a trade deficit of $6½ billion yields a current account deficit of $20 billion in 1980. This projection implies little or no narrowing of Japan's current account deficit in the remainder of this year. A significant reduction of Japan's deficit is not expected until 1981, when the country's large growth rate gap is likely to be reduced substantially.

The yen

The magnitude of Japan's present and prospective current account imbalances and its heavy dependence on imported oil have led some observers to speculate that Japan needs to maintain an undervalued exchange rate to offset the effects of higher real oil prices. Whether real effective depreciation of the yen is warranted depends on how successful Japanese economic policies will be in promoting adjustment through fuel conservation, industrial restructuring, and high productivity growth. As noted earlier, Japan already is embarking on an ambitious long-run program toward greater fuel conservation and reduced dependence on imported oil. It continues to demonstrate a capacity to alter industrial structure to take advantage of new technologies and to penetrate fast-growing markets, such as OPEC and the non-oil developing countries, which together account for more than 45% of Japanese exports. Productivity increases in Japanese industry continue to outpace those of most other industrial countries — averaging 10% per annum since 1975. This performance is only marginally below Japan's 10½% average annual increase in the high growth era of the 1960s and early

1970s. Each of these factors should go a long way toward helping Japan adjust to higher real oil prices, and suggests that sustained undervaluation of the yen is not needed for such adjustment.

Whether nominal depreciation of the yen is warranted will hinge on Japan's inflation and cost performance relative to that of its major trading partners. Japan's rate of wholesale price inflation for manufactures exceeded that of its major trading partners by almost 3% in the last twelve months. Japan's wholesale price inflation, however, has begun to decelerate recently as a result of weaker commodity prices and the yen's strength. This, together with restrictive fiscal and monetary policies and moderate wage settlements (wage increases in this year's spring offensive averaged less than 7% despite a 12% increase in labor productivity in manufacturing last year), all point to a further slowing of wholesale price inflation in the months ahead. Over the next twelve months, Japan's rate of wholesale price inflation for manufactures is expected to be somewhat below that of its major trading partners.

The recent strengthening of the yen, brought on by interest rate developments and large capital inflows, has more than corrected the previous undervaluation of the yen on a real effective basis. Indeed, with the yen's real effective exchange rate having recently moved some 3% above its longer-term average level, there is a risk of overshooting in the opposite direction. Japan, after all, still faces a sizable current account imbalance in the foreseeable future.

Statistical appendix

for key to data in tables
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Information herein is from sources considered to be reliable but is furnished without responsibility on the part of Morgan Guaranty Trust Company.

Effective exchange rates

Index numbers, March 1973=100. The index of the effective exchange rate for a currency is a measure of that currency's trade-weighted average appreciation or depreciation vis-à-vis the currencies of 15 other major countries. The exchange rates used in the construction of this index are the averages of daily noon spot exchange rates in New York for months and for weeks ending on dates shown. The trade weights used are based on 1976 bilateral trade in manufactures.

	United States	Canada	Japan	United Kingdom	Germany	France	Italy	Belgium	Netherlands	Switzerland	Austria	Denmark	Norway	Sweden	Australia	Spain
pre-June 1970 parities	118.5	94.9	79.3	116.2	91.6	97.5	110.9	95.9	98.2	88.3	97.8	97.9	98.1	102.2	92.2	98.4
Smithsonian central rates	107.0	101.3	88.7	116.0	95.4	96.1	106.3	97.0	99.1	91.6	98.0	96.0	96.3	100.5	91.7	98.1
1979																
May	99.0	85.4	116.7	72.5	134.9	89.3	55.4	109.6	118.3	165.1	116.3	100.2	102.0	88.2	74.2	79.7
June	99.1	84.1	116.1	73.9	135.5	89.4	55.2	109.6	117.6	166.3	116.3	98.2	101.7	88.5	74.2	79.0
July	97.3	84.2	115.7	77.3	136.0	89.1	55.4	110.1	117.3	166.3	116.7	98.6	100.6	88.2	73.7	76.9
August	97.7	83.8	115.1	76.6	135.9	89.1	55.6	110.1	117.6	165.8	117.3	98.3	101.2	88.5	74.0	77.2
September	97.6	84.2	112.3	74.5	137.1	89.4	55.4	110.5	118.2	168.8	119.4	99.1	101.6	88.3	74.3	76.6
October	98.9	83.7	108.8	73.0	138.3	89.9	54.6	110.9	118.0	167.7	120.5	98.8	102.8	88.5	74.6	77.0
November	100.2	83.6	102.4	72.7	139.7	90.7	54.4	110.8	118.3	166.0	121.3	98.5	102.0	88.3	74.7	76.7
December	98.7	84.0	103.5	73.9	140.2	91.2	54.4	110.4	119.4	167.5	121.5	94.6	101.3	88.1	74.2	75.3
1980																
January	97.9	84.3	104.2	75.6	139.9	91.0	54.4	110.4	119.4	166.6	121.6	93.5	101.8	87.9	73.9	75.2
February	98.4	85.0	101.7	77.2	139.3	90.5	54.7	110.0	119.1	163.4	121.7	92.9	103.2	88.0	74.2	75.3
March	101.3	84.3	101.9	77.4	137.8	90.2	53.9	109.6	118.7	159.1	121.4	91.7	104.2	88.2	75.1	75.5
April	102.3	83.4	101.6	78.2	137.1	90.3	53.4	109.9	118.1	161.1	121.0	91.2	104.6	88.4	75.5	73.3
4	104.4	83.3	101.0	78.3	135.6	90.0	53.6	109.3	117.8	157.4	120.3	90.5	105.2	88.7	75.9	74.2
11	103.2	83.8	100.5	78.0	136.5	90.4	53.4	109.3	118.3	159.8	120.8	91.2	104.9	88.4	75.5	73.8
18	102.1	83.4	101.6	78.0	137.2	90.5	53.4	109.9	118.2	162.1	121.3	91.4	104.4	88.1	75.5	73.2
25	101.0	83.4	102.4	78.6	137.8	90.3	53.4	110.7	118.1	162.8	121.6	91.3	104.0	88.0	75.1	73.0
May 2	100.2	82.8	104.6	77.9	138.2	90.5	53.5	110.6	117.9	164.0	122.0	91.7	104.0	88.6	75.1	72.3
9	99.3	83.0	107.5	78.2	138.4	90.3	53.4	110.0	118.2	164.8	121.6	91.3	103.7	88.4	74.9	71.8
16	98.5	83.4	109.9	78.2	138.3	90.2	53.4	110.6	118.4	164.1	121.7	91.4	103.5	88.1	74.9	71.4
23	97.7	84.1	111.1	78.9	137.8	90.4	53.3	110.5	118.3	163.3	121.5	91.4	103.3	88.0	74.6	71.2

Real effective exchange rates

Index numbers, March 1973=100. The index of the real effective exchange rate is the index of the effective exchange rate adjusted for inflation differentials which are measured by wholesale prices of nonfood manufactures. Exchange rates and trade weights used in the construction of this index are the same as those used for effective exchange rate indices. Annual figures are averages of months.

	United States	Canada	Japan	United Kingdom	Germany	France	Italy	Belgium	Netherlands	Switzerland	Austria	Denmark	Norway	Sweden	Australia	Spain
1976	100.3	106.7	88.3	96.6	101.2	100.0	92.6	97.9	101.8	110.9	106.1	96.2	99.1	109.1	101.8	105.1
1977	100.0	99.8	93.5	101.6	102.5	96.1	95.6	99.8	103.8	105.2	109.2	97.3	99.8	105.1	91.9	100.8
1978	95.4	92.9	107.2	106.4	103.3	96.8	93.8	99.6	103.7	121.7	109.3	103.5	95.6	96.6	87.3	97.0
1979	95.5	92.9	96.1	118.6	104.3	98.6	93.5	97.1	100.2	115.4	107.9	101.7	90.4	99.2	86.0	109.2
1979																
May	95.9	94.7	96.6	116.5	103.4	98.0	93.7	96.7	100.5	115.3	106.4	99.9	91.8	99.3	86.2	113.3
June	96.1	92.9	96.3	119.9	103.7	98.2	93.1	96.3	99.4	116.9	106.2	98.7	90.5	100.1	85.6	112.4
July	94.2	92.3	96.7	127.5	103.7	98.2	93.1	96.6	98.4	115.6	106.3	100.2	88.2	99.9	85.3	112.0
August	94.4	92.7	96.7	126.7	103.4	98.1	94.2	96.0	98.8	113.8	106.3	101.9	88.4	100.6	86.0	112.6
September	94.6	93.3	94.6	123.3	103.8	98.8	94.6	95.8	99.0	115.3	108.1	103.8	88.9	100.2	86.1	111.6
October	96.8	92.8	90.9	121.4	104.5	99.0	93.9	96.1	98.3	113.3	108.9	103.3	89.8	100.1	86.2	110.9
November	98.2	92.3	85.3	121.2	105.7	99.8	93.8	96.1	98.0	112.1	109.5	101.3	89.4	100.7	86.7	110.0
December	96.4	93.0	86.9	123.3	105.9	100.1	95.2	95.4	98.5	112.6	109.1	96.9	89.0	100.3	86.1	108.6
1980																
January	95.5	94.7	87.2	128.2	104.9	100.3	96.7	94.8	97.4	110.0	109.3	95.9	89.5	99.4	84.8	109.5
February	96.8	94.5	85.7	131.7	104.2	100.0	97.2	93.8	96.7	107.0	109.9	95.4	91.8	99.1	84.7	109.4
March	100.4	91.9	86.8	132.8	102.8	99.8	97.1	92.6	95.8	103.4	108.8	94.6	93.1	99.2	85.3	109.0
April	100.8	92.8	86.4	134.5	101.9	100.2	96.9	92.8	94.6	104.0	108.7	93.6	93.7	99.1	85.5	107.1

Euro-currency market size

based on foreign-currency liabilities and claims of banks in major European countries, the Bahamas, Bahrain, Cayman Islands, Panama, Canada, Japan, Hong Kong, and Singapore
billions of dollars (rounded to nearest $5 billion), at end of period

	1971	1972	1973	1974	1975	1976	1977	1978	1979		
									Jun	Sep	Dec[p]
Estimated size											
Gross	145	200	305	375	460	565	695	895	965	1070	1120
Liabilities to nonbanks	30	35	55	75	80	100	125	170	200	220	n.a.
Liabilities to central banks	15	25	40	60	70	85	110	120	130	140	n.a.
Liabilities to other banks[a]	100	140	210	240	310	380	460	605	635	710	n.a.
Net	85	110	160	215	250	310	380	485	530	580	610
Claims on nonbanks	35	45	65	100	115	150	195	245	265	280	n.a.
Claims on central banks and on banks outside market area[b]	35	45	75	95	115	135	155	195	220	245	n.a.
Conversions of Euro funds into domestic currencies by banks in market area[c]	15	20	20	20	20	25	30	45	45	55	n.a.
Euro-dollars as % of gross liabilities in all Euro-currencies	76	78	73	77	78	79	76	74	73	72	n.a.

a Includes unallocated liabilities
b Includes unallocated claims
c in European market area only
r revised
p preliminary

Euro-currency deposit rates

prime banks' bid rates in London, at or near end of month

	1976	1977	1978	1979				1980			
	Dec	Dec	Dec	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
Euro-dollar:											
overnight	4.63	7.12	10.62	11.75	14.25	12.87	14.00	13.50	13.75	19.25	12.25
7-day fixed	4.75	6.31	10.62	11.87	14.37	13.00	14.00	13.62	14.62	19.37	12.75
one month	5.13	6.87	11.00	13.00	15.06	13.56	14.37	14.00	16.12	19.25	14.25
three months	5.00	7.19	11.69	12.75	15.69	14.00	14.44	14.37	16.94	19.69	14.37
six months	5.38	7.50	12.31	12.75	15.31	13.94	14.44	14.37	17.00	19.56	13.69
twelve months	5.56	7.67	12.00	12.19	14.25	12.87	12.87	13.81	16.37	18.00	12.75
Euro-mark:											
one month	4.62	2.19	3.19	7.19	8.12	9.12	8.50	8.25	8.75	8.94	9.06
three months	4.69	2.50	3.31	7.44	8.94	8.81	8.56	8.37	9.31	9.69	9.06
six months	4.75	2.81	3.69	7.50	8.87	8.62	8.56	8.44	9.37	10.06	9.00
twelve months	4.81	3.06	3.81	7.50	8.62	8.00	8.12	8.56	9.44	10.00	8.69
Euro-Swiss franc:											
one month	0.94	1.31	—.06	1.06	2.94	4.25	5.19	4.75	3.75	5.87	5.25
three months	1.44	1.37	0.00	1.75	4.00	4.50	5.75	5.37	5.50	7.12	6.12
six months	2.12	1.87	0.12	2.00	4.50	4.62	5.87	5.62	5.75	7.50	6.25
twelve months	2.50	2.25	0.62	2.37	4.12	4.50	5.56	5.62	5.87	7.00	5.62
Euro-sterling:											
one month	16.37	6.50	12.00	13.87	14.37	16.00	16.75	18.50	17.75	18.00	17.25
three months	16.12	6.62	12.62	14.06	15.12	16.50	16.75	18.00	18.50	18.25	17.25
six months	14.75	7.12	13.25	14.06	15.00	16.25	16.75	17.00	18.37	18.37	16.37
twelve months	14.50	7.37	13.00	13.50	14.56	15.12	15.25	16.00	17.87	17.50	15.37
Euro-French franc:											
one month	12.37	12.25	10.50	13.12	13.12	13.12	13.87	12.12	13.12	13.37	12.50
three months	12.62	13.25	9.87	13.25	14.00	13.62	14.00	12.81	13.87	14.12	12.75
six months	12.62	14.00	9.87	13.37	14.00	13.62	14.12	13.37	14.62	14.50	12.87
twelve months	12.50	13.25	10.25	13.31	13.87	13.62	13.75	13.56	14.62	14.87	13.00
Euro-yen:											
one month	7.00	0.62	—.69	6.87	5.87	8.50	7.62	7.75	9.12	15.00	11.50
three months	6.62	1.81	0.62	7.31	7.94	8.75	8.31	8.25	10.12	15.50	12.50
six months	6.44	2.75	1.87	7.19	8.06	8.44	8.62	8.25	10.37	15.00	11.37
twelve months	6.25	3.25	2.19	7.00	7.56	7.56	7.94	8.25	10.25	13.62	10.37

Euro-currency bank credits

publicly-announced in period, in millions of dollars

	1977	1978	1979	1980			Jan-May	
				Mar[r]	Apr[r]	May[p]	1980	1979
Industrial countries	**17 205**	**28 952**	**27 248**	**1 594**	**5 146**	**1 038**	**11 222**	**8 927**
Canada	3 292	5 705	1 845	50	157	—	207	400
Denmark	868	2 242	1 205	358	75	56	512	390
Finland	314	550	92	—	200	—	350	50
France	2 325	1 915	2 955	32	77	25	210	1 460
Greece	204	509	1 010	—	595	—	659	140
Ireland	440	616	687	—	—	—	—	250
Italy	1 024	2 485	3 708	325	1 421	50	2 384	1 460
Japan	112	27	—	—	—	—	—	—
Norway	182	1 517	935	20	115	32	298	386
Spain	1 973	2 426	4 184	102	641	155	1 796	1 592
Sweden	1 446	1 872	1 263	—	—	—	233	233
United Kingdom	1 992	3 899	795	143	525	—	898	475
United States	826	1 206	2 348	216	—	295	820	848
Others[a]	2 207	3 983	6 221	348	1 340	425	2 855	1 243
Developing countries	**20 976**	**37 300**	**47 964**	**2 577**	**2 844**	**3 561**	**12 223**	**16 315**
Non-OPEC countries	13 494	26 902	35 411	1 264	1 971	1 856	7 256	11 904
Argentina	849	1 461	2 965	135	192	220	742	1 337
Brazil	2 814	5 634	6 278	250	370	200	860	2 337
Chile	591	1 045	867	20	198	61	349	73
Korea	1 265	2 651	3 258	82	214	20	1 092	938
Malaysia	212	858	1 168	—	—	—	—	100
Mexico	2 727	7 250	8 243	305	346	880	1 720	3 148
Morocco	797	605	500	—	—	300	300	200
Peru	189	—	596	105	—	110	255	50
Philippines	698	2 073	2 067	102	25	—	349	724
Taiwan	524	255	1 063	—	—	—	—	291
Other[b]	2 828	5 070	8 406	265	626	65	1 589	2 706
OPEC countries	7 481	10 398	12 553	1 313	873	1 705	4 967	4 411
Algeria	723	2 576	1 906	—	40	—	40	965
Indonesia	817	1 118	1 061	574	45	—	780	418
Iran	1 220	1 107	—	—	—	—	—	—
United Arab Emirates	1 086	726	401	—	—	1	60	240
Venezuela	1 666	2 054	6 830	478	650	1 394	2 828	1 883
Other	1 969	2 817	2 355	261	138	310	1 259	905
Communist countries	**3 394**	**3 767**	**7 325**	—	**150**	**55**	**685**	**4 945**
China	—	—	3 395	—	—	—	—	3 125
East Germany	832	642	796	—	—	55	55	180
Hungary	300	700	260	—	—	—	250	10
Poland	19	374	849	—	—	—	30	560
Other[c]	2 243	2 051	2 025	—	150	—	350	1 070
International organizations	**190**	**160**	**275**	**250**	—	—	**250**	**125**
TOTAL	**41 765**	**70 179**	**82 812**	**4 421**	**8 140**	**4 654**	**24 380**	**30 312**

[a] Includes multi-national organizations [b] includes regional development organizations [c] Includes COMECON institutions [p] preliminary
[r] revised

International bond yields

long-term issues, at or near end of month

	1976	1977	1978	1979				1980			
	Dec	Dec	Dec	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
U.S. companies:											
U.S. dollar	7.39	7.95	8.55	9.27	10.10	10.07	10.13	10.35	11.27	11.61	10.98
Swiss franc	5.46	5.31	5.70	6.20	6.48	6.54	6.61	6.84	7.27	7.32	7.19
European companies:											
U.S. dollar	8.56	8.42	9.21	9.86	10.79	10.76	10.93	11.61	12.95	13.07	11.94
German mark	7.38	6.80	6.84	7.16	7.40	7.46	7.55	7.74	8.70	9.33	8.36
Governments:											
U.S. dollar	8.90	8.42	9.12	9.49	10.41	10.57	10.66	10.94	12.07	12.17	11.67

New international bond issues

new issues in period, in millions of dollars

	1977	1978	1979	1980			Jan-May	
				Mar	Apr^r	May^p	1980	1979
By type:								
Euro-bonds, total	**17 771**	**14 125**	**18 726**	**1 117**	**2 357**	**1 972**	**7 672**	**8 226**
by category of borrower								
U.S. companies	1 130	1 122	2 872	200	490	496	1 345	1 135
Foreign companies	7 347	4 540	7 183	403	619	749	2 538	2 918
State enterprises	4 667	3 291	4 524	327	613	452	2 122	2 145
Governments	2 936	3 643	2 433	152	500	100	1 282	1 301
International organizations	1 691	1 529	1 714	35	100	175	350	727
by currency of denomination								
U.S. dollar	11 627	7 290	12 565	765	2 130	1 540	5 597	4 664
German mark	4 131	5 251	3 626	235	55	204	1 219	2 120
Dutch guilder	452	394	531	13	30	25	166	260
Canadian dollar	655	—	425	—	67	43	110	347
European unit of account	28	165	253	25	—	—	25	86
Other	878	1 025	1 326	79	175	160	655	749
Foreign bonds outside the United States, total	**8 777**	**14 359**	**17 749**	**688**	**1 142**	**930**	**5 808**	**7 999**
by category of borrower								
U.S. companies	40	245	217	29	108	—	137	156
Foreign companies	1 421	2 110	3 463	230	151	325	1 059	1 414
State enterprises	2 427	3 163	3 284	245	59	309	1 034	939
Governments	2 043	5 771	7 663	28	81	202	2 132	4 920
International organizations	2 846	3 070	3 122	117	743	94	1 407	570
by currency of denomination								
German mark	2 181	3 789	5 379	54	785	140	2 538	1 814
Swiss franc	4 970	5 698	9 777	617	357	714	2 789	4 842
Dutch guilder	211	385	75	—	—	76	107	—
Japanese yen	1 271	3 826	1 833	—	—	—	229	1 099
Other	144	671	685	17	—	—	148	244
Foreign bonds in the United States, total	**7 428**	**5 795**	**4 515**	**255**	**—**	**200**	**1 069**	**2 035**
by category of borrower								
Canadian entities	3 022	3 142	2 193	253	—	75	620	894
International organizations	1 917	459	1 100	—	—	—	250	650
Other	2 489	2 194	1 222	2	—	125	199	491
By country of borrower:								
Industrial countries	**23 851**	**24 964**	**31 886**	**1 686**	**2 496**	**2 703**	**11 834**	**14 919**
Australia	1 074	1 218	593	—	—	—	230	336
Austria	1 384	1 027	1 218	140	—	229	594	450
Canada	5 277	4 764	4 197	253	297	243	1 213	2 449
Denmark	706	1 018	752	28	81	160	445	340
Finland	358	952	699	36	—	—	197	369
France	1 945	1 286	2 106	75	337	225	945	598
Japan	1 979	3 467	5 775	406	309	433	1 853	2 146
Netherlands	682	251	832	68	76	145	377	323
New Zealand	567	744	553	—	—	—	—	127
Norway	1 889	2 751	1 955	170	20	30	503	1 124
Sweden	1 574	876	1 530	152	540	158	1 262	617
United Kingdom	1 915	1 365	1 181	—	158	289	568	426
United States	1 353	2 973	6 767	286	598	496	2 712	3 848
Developing countries	**3 421**	**4 227**	**3 085**	**242**	**160**	**80**	**658**	**1 394**
Non-OPEC countries	2 676	2 684	2 667	92	160	80	438	1 229
Brazil	732	843	930	—	—	—	—	417
Mexico	1 262	568	363	37	90	—	164	165
Philippines	129	170	175	—	—	—	—	75
OPEC countries	745	1 543	418	150	—	—	220	165
Algeria	166	721	208	—	—	—	—	128
Venezuela	438	588	55	50	—	—	120	—
Communist countries	**248**	**30**	**75**	**—**	**—**	**50**	**50**	**—**
Hungary	174	—	—	—	—	50	50	—
International organizations	**6 454**	**5 058**	**5 936**	**152**	**843**	**269**	**2 007**	**1 947**
TOTAL	**33 976**	**34 279**	**40 982**	**2 060**	**3 499**	**3 102**	**14 549**	**18 260**

Central bank discount rates

	1976	1977	1978	1979			1980	Current	
	end Dec	end Dec	end Dec	end Jun	end Sep	end Dec	end Mar	May 28 1980	effective since
United States	5.25	6.00	9.50	9.50	11.00	12.00	16.00[a]	13.00	May 6, 80
Canada	8.50	7.50	10.75	11.25	12.25	14.00	15.69	11.83	May 23, 80
Japan	6.50	4.25	3.50	4.25	5.25	6.25	9.00	9.00	Mar 19, 80
United Kingdom	14.25	7.00	12.50	14.00	14.00	17.00	17.00	17.00	Nov 15, 79
Belgium	9.00	9.00	6.00	9.00	9.00	10.50	14.00	14.00	Mar 19, 80
France	10.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	Aug 31, 77
Germany	3.50	3.00	3.00	4.00	5.00	6.00	7.00	7.50	May 2, 80
Italy	15.00	11.50	10.50	10.50	10.50	15.00	15.00	15.00	Dec 6, 79
Netherlands	6.00	4.50	6.50	7.00	8.00	9.50	9.50	10.00	May 2, 80
Austria	4.00	5.50	4.50	3.75	3.75	3.75	6.75	6.75	Mar 21, 80
Denmark	10.00	9.00	8.00	9.00	11.00	11.00	13.00	13.00	Feb 18, 80
Finland	9.25	8.25	7.25	7.25	7.25	8.50	9.25	9.25	Feb 1, 80
Ireland	14.75	6.75	11.85	13.70	13.70	16.40	16.85	16.85	Mar 21, 80
Norway	6.00	6.00	7.00	7.00	7.00	9.00	9.00	9.00	Nov 30, 79
Spain	7.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Jul 26, 77
Sweden	8.00	8.00	6.50	6.50	8.00	9.00	10.00	10.00	Jan 18, 80
Switzerland	2.00	1.50	1.00	1.00	1.00	2.00	3.00	3.00	Feb 28, 80
Brazil	28.00	28.00	33.00	33.00	33.00	33.00	33.00	33.00	Nov, 78
Korea	13.00	14.00	14.50	14.50	14.50	14.50	20.50	20.50	Jan 12, 80
New Zealand	8.50	10.00	11.00	13.00	13.00	14.00	14.00	14.00	Dec 20, 79
Philippines	6.00	6.00	4.00	4.00	4.00	11.00	11.00	11.00	Dec 1, 79
Singapore	4.00	3.50	4.50	5.00	5.75	6.75	8.50	9.00	May 9, 80
South Africa	9.00	9.00	8.50	7.50	7.00	7.00	7.00	7.00	Aug 13, 79
Venezuela	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	Oct 14, 70

[a]: applicable to large banks; 13% for other banks

Day-to-day money rates

monthly averages

	1976	1977	1978	1979				1980			
	Dec	Dec	Dec	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
United States	4.65	6.55	9.91	11.32	13.07	13.64	13.74	13.80	13.89	16.66	18.58
Canada	8.66	6.84	9.44	9.87	12.08	12.18	13.83	13.14	12.74	12.13	15.58
Japan	7.11	5.01	4.57	6.81	6.74	7.61	8.02	8.12	8.76	10.73	12.21
Australia	7.17	9.96	8.40	8.89	8.50	7.86	7.84	7.95	8.22	9.26	8.39
United Kingdom	14.56	4.81	10.00	12.78	11.50	11.75	14.87	14.25	16.12	15.00	16.06
Belgium	7.51	7.48	6.73	8.96	11.49	10.01	10.65	11.72	10.18	12.64	14.94
France	10.44	9.30	6.67	11.00	11.47	11.95	12.17	11.99	12.17	12.96	12.40
Germany	5.03	3.24	3.61	6.70	6.62	7.85	9.15	8.25	8.12	8.65	9.06
Italy	16.75	11.37	11.00	11.25	12.37	12.37	16.00	16.50	16.60	16.80	16.62
Netherlands	6.89	5.27	10.00	9.58	9.41	11.07	15.67	11.42	11.01	9.35	10.46
Austria	n.a.	9.25	5.37	6.50	6.62	6.75	8.50	8.75	9.00	10.25	9.87
Finland	14.53	22.99	9.29	8.68	9.13	12.87	13.53	12.70	11.14	11.97	12.36
Ireland	14.81	8.00	12.12	17.62	16.75	16.75	16.88	24.00	16.88	24.00	17.62
Spain	8.03	7.22	16.75	10.80	8.14	9.84	9.61	11.18	11.96	15.25	14.76
Sweden	10.69	8.91	6.26	9.24	10.75	9.08	11.99	10.71	12.31	11.32	10.74
Switzerland	0.50	0.85	0.00	1.12	0.75	1.50	1.25	1.50	1.25	1.75	2.75
Brazil	25.92	28.44	35.64	36.72	24.00	24.00	32.28	27.12	27.48	36.24	17.88
Hong Kong	4.81	4.87	9.67	10.37	10.25	10.37	14.19	14.50	15.75	13.87	13.62
Korea	14.00	14.40	15.00	15.00	15.00	15.00	15.00	19.20	19.20	19.20	19.20
Mexico	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11	7.11
Philippines	15.46	14.44	13.22	11.75	10.48	11.69	16.25	11.41	12.21	14.09	15.45
Singapore	3.59	3.59	4.98	6.66	6.40	6.85	10.17	10.13	9.59	9.55	10.47
South Africa	7.59	7.65	7.11	4.12	3.79	3.59	3.81	3.94	4.01	3.94	4.06
Euro-dollars	4.66	6.94	10.80	11.73	13.37	12.70	14.41	13.77	14.87	16.13	16.90

Treasury bill rates

bond-equivalent yields, at or near end of month

	1976	1977	1978	1979				1980			
	Dec	Dec	Dec	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
United States	4.41	6.33	9.42	10.62	12.37	11.68	12.39	12.96	14.92	15.85	10.29
Canada	8.14	7.17	10.46	11.64	13.61	13.62	13.66	13.50	13.55	15.24	15.15
Japan	5.68	4.15	3.39	5.17	5.17	5.17	5.68	5.68	5.68	5.68	5.68
Australia	8.73	8.35	8.35	9.02	9.02	9.02	9.31	9.33	9.52	10.77	11.12
United Kingdom	13.98	6.42	12.01	14.01	13.93	16.75	16.45	16.93	16.71	16.95	16.73
Belgium	10.00	9.25	9.25	13.00	14.00	14.30	14.40	14.40	15.00	17.50	17.00
Ireland	14.28	6.74	11.83	13.56	13.72	16.36	16.37	16.08	16.45	16.76	16.88
Italy	17.38	12.81	12.81	11.62	12.93	13.05	15.62	13.17	15.43	15.42	16.02
Netherlands	5.63	6.00	9.50	9.00	9.50	14.00	12.75	10.75	10.50	10.75	10.25
Sweden	9.75	9.21	5.84	6.60	8.70	9.74	9.74	10.79	10.79	10.78	10.78
Brazil	38.58	38.08	41.21	36.34	31.48	27.33	27.84	24.62	23.85	25.90	27.33
Korea	n.a.	16.88	17.01	19.53	19.53	19.53	19.53	22.01	22.01	22.01	22.01
Mexico	n.a.	n.a.	12.75	15.58	15.95	16.85	17.89	18.71	19.30	n.a.	n.a.
New Zealand	4.00	7.50	10.50	10.60	11.25	11.25	11.25	11.25	11.25	11.25	11.25
Philippines	9.78	10.04	12.08	12.70	12.68	12.64	12.63	12.56	12.33	12.31	12.31
Singapore	2.99	3.17	4.01	5.73	5.70	5.65	6.18	6.77	6.74	6.92	7.21
South Africa	7.94	8.17	7.61	4.49	3.97	3.90	4.30	4.29	4.38	4.39	4.47

Representative money-market rates

bond-equivalent yields on major short-term (mostly 3-4 month) money-market instruments, other than Treasury bills, at or near end of month

	1976	1977	1978	1979				1980			
	Dec	Dec	Dec	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
United States	4.75	6.84	10.57	11.95	14.72	12.90	13.70	13.49	15.45	18.44	13.70
Canada	8.62	7.25	10.62	11.90	14.62	13.65	14.15	13.80	13.75	16.00	15.40
Japan	6.75	5.89	4.64	7.12	6.97	8.14	8.01	8.02	9.86	12.68	12.12
Australia	9.75	9.75	9.10	10.30	10.65	10.50	10.30	10.30	10.40	11.75	14.00
United Kingdom	14.38	6.50	12.50	14.06	14.75	16.81	17.00	17.75	18.31	18.12	17.12
Belgium	10.50	9.50	9.25	12.50	14.10	14.35	14.45	14.50	15.00	17.50	17.00
France	10.00	9.19	6.44	11.62	12.50	12.37	12.62	12.19	13.62	13.69	12.56
Germany	4.80	3.60	3.70	7.90	9.75	9.50	8.70	8.85	9.50	9.80	9.97
Ireland	14.69	6.75	13.00	17.62	17.50	17.75	18.12	18.00	18.37	19.12	18.75
Italy	16.63	11.75	11.37	11.62	12.75	13.62	17.12	17.75	17.62	17.87	16.50
Netherlands	5.88	6.25	10.50	9.87	10.75	14.75	13.00	11.37	12.87	11.25	10.37
Spain	11.36	12.06	22.80	15.70	11.60	12.80	13.20	13.40	13.40	15.50	17.50
Switzerland	1.84	2.02	0.50	1.62	3.62	4.50	6.12	6.00	5.25	7.37	6.37
Hong Kong	5.50	5.73	11.82	13.12	12.75	13.25	14.37	15.37	15.50	15.87	14.75
Korea	16.99	16.88	17.01	19.53	19.53	19.53	19.53	22.01	22.01	22.01	22.01
New Zealand	10.37	11.87	12.00	15.00	16.00	16.25	16.00	16.20	15.75	16.00	15.25
Philippines	15.47	11.96	11.48	9.94	10.01	10.13	10.41	10.33	9.99	11.49	11.79
Singapore	3.75	4.81	7.38	8.75	8.25	8.25	10.12	10.12	10.25	11.50	11.31
South Africa	9.73	9.00	7.85	4.93	4.30	4.12	4.72	4.61	4.93	5.03	5.55

Commercial bank deposit rates

at or near end of month

	1976	1977	1978	1979				1980			
	Dec	Dec	Dec	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
United States	4.70	6.80	10.90	12.10	14.50	13.20	13.55	13.40	15.55	18.50	14.50
Canada	8.00	7.25	10.45	11.90	14.50	13.40	14.05	13.70	13.75	15.50	15.35
Japan	4.50	3.25	2.50	4.00	4.00	4.00	4.00	4.00	4.00	5.00	6.00
Australia	9.75	9.50	8.50	9.90	10.00	10.15	10.25	10.40	10.50	12.35	13.00
United Kingdom	14.13	6.37	12.25	14.06	14.62	16.75	16.81	17.50	17.75	18.12	17.16
Belgium	10.00	9.50	9.87	13.00	14.37	14.63	14.50	14.50	15.12	17.50	15.00
France	9.50	9.00	6.50	11.50	12.50	12.75	12.50	12.25	12.75	12.50	12.50
Germany	4.20	3.40	3.50	7.00	8.25	8.25	7.75	8.00	8.50	9.25	9.25
Italy	17.00	17.00	12.50	12.50	13.02	12.50	13.25	13.25	13.25	13.20	13.25
Netherlands	6.13	7.00	11.62	10.25	11.00	15.00	13.50	12.00	13.00	11.75	10.75
Austria	n.a.	9.00	6.75	8.25	8.75	8.50	8.50	8.75	8.75	9.75	9.87
Denmark	9.00	8.00	7.00	10.00	10.00	10.00	10.00	10.00	12.00	12.00	12.00
Finland	5.75	4.25	3.25	3.25	3.25	4.25	4.25	4.25	5.00	5.00	5.00
Ireland	n.a.	6.87	12.75	17.25	17.25	17.50	17.87	18.00	18.00	19.12	18.75
Norway	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Spain	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Sweden	7.75	7.75	6.25	6.75	7.75	8.75	8.75	9.75	9.75	9.75	9.75
Switzerland	1.50	1.12	0.12	1.00	2.25	3.75	4.75	4.75	4.75	6.75	5.50
Brazil	45.60	39.60	46.80	40.68	42.12	43.20	45.00	45.48	43.68	44.76	44.76
Hong Kong	3.25	1.75	4.50	9.25	9.25	9.25	9.25	9.25	9.25	10.50	10.50
Korea	15.00	13.20	15.00	15.00	15.00	15.00	15.00	19.20	19.20	19.20	19.20
Mexico	8.50	11.00	12.00	13.68	15.13	16.80	16.75	17.35	18.15	n.a.	n.a.
New Zealand	10.25	11.00	12.00	14.50	15.50	15.75	15.90	15.80	14.25	14.00	14.00
Philippines	8.50	8.50	8.50	8.50	8.50	8.50	10.50	10.50	10.50	10.50	10.50
Singapore	3.75	5.31	7.31	8.44	8.31	8.12	10.31	10.38	10.75	11.81	10.75
South Africa	9.75	8.70	7.30	4.75	4.10	4.00	4.82	4.40	4.75	4.68	5.35
Venezuela	8.00	7.00	7.25	13.50	13.50	15.00	15.00	15.00	15.00	17.00	17.00
Euro-dollars	5.00	7.19	11.69	12.75	15.69	14.00	14.44	14.37	16.94	19.69	14.37

Commercial bank lending rates to prime borrowers

at or near end of month

	1976	1977	1978	1979				1980			
	Dec	Dec	Dec	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr
United States	6.00	7.75	11.75	13.50	15.00	15.50	15.25	15.25	16.75	19.50	18.50
Canada	9.25	8.25	11.50	13.00	14.75	15.00	15.00	15.00	15.00	16.50	16.50
Japan	7.42	5.47	4.50	5.68	5.86	6.16	6.51	6.71	6.95	7.20	8.10
Australia	11.50	11.50	11.00	10.75	10.75	10.75	10.75	11.25	11.25	12.25	12.50
United Kingdom	15.50	8.00	13.50	15.00	15.00	18.00	18.00	18.00	18.00	19.00	18.50
Belgium	11.75	10.00	10.00	13.25	14.00	14.75	15.25	15.50	16.50	18.75	18.75
France	11.65	11.35	10.95	12.50	12.65	13.65	13.65	13.65	14.65	14.65	14.15
Germany	6.50	6.00	5.50	8.25	8.75	9.75	9.75	9.75	9.75	10.50	10.50
Italy	21.00	16.00	15.00	15.00	16.50	16.50	19.50	19.50	19.50	19.50	19.50
Netherlands	8.50	7.00	12.00	11.00	11.37	15.00	15.00	13.25	14.25	13.25	12.00
Austria	n.a.	9.75	8.75	8.00	8.50	8.50	8.50	9.50	9.50	9.50	11.00
Denmark	14.00	12.50	10.00	13.00	13.25	13.75	13.75	13.75	15.75	15.75	15.75
Finland	9.71	8.85	7.87	7.85	7.85	8.98	9.06	9.08	9.77	n.a.	n.a.
Ireland	14.00	8.25	13.75	16.00	16.00	16.00	16.00	16.00	16.00	16.00	18.50
Norway	8.33	8.33	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
Spain	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
Sweden	10.25	10.25	8.50	8.75	9.75	10.75	10.75	11.75	11.75	11.75	11.75
Switzerland	7.50	6.75	5.00	5.00	5.00	5.00	5.00	5.00	5.50	5.50	5.75
Brazil	30.00	52.05	61.70	57.00	57.00	57.00	57.00	57.00	57.00	57.00	57.00
Hong Kong	6.00	4.75	8.75	14.50	14.50	14.50	14.50	14.50	14.50	16.00	16.00
Korea	17.00	15.00	18.50	18.50	18.50	18.50	18.50	24.50	24.50	24.50	24.50
Mexico	15.50	17.00	17.50	17.50	19.00	19.00	19.00	19.00	19.00	21.39	n.a.
New Zealand	7.50	8.50	9.75	11.25	10.75	12.00	11.75	12.00	12.75	12.75	12.75
Philippines	14.00	14.00	14.00	14.00	14.00	14.00	16.00	16.00	16.00	16.00	16.00
Singapore	6.78	7.02	7.65	8.92	9.10	9.18	9.50	10.25	10.55	11.28	12.10
South Africa	12.50	12.50	11.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50
Venezuela	9.50	9.50	10.25	11.50	11.50	13.00	13.00	13.00	13.00	14.00	17.00
Euro-dollars	5.50	7.56	12.06	13.12	16.06	14.37	14.81	14.74	17.31	20.06	14.74

Domestic government bond yields

long-term issues, at or near end of month

	1976	*1977*	*1978*	*1979*				*1980*			
	Dec	*Dec*	*Dec*	*Sep*	*Oct*	*Nov*	*Dec*	*Jan*	*Feb*	*Mar*	*Apr*
United States	7.20	7.97	9.00	9.28	10.50	10.09	10.20	11.11	12.60	12.50	10.38
Canada	8.47	8.77	9.68	10.38	11.16	10.94	11.32	12.13	12.91	13.20	12.01
Japan	8.61	6.40	6.40	8.04	8.46	8.78	8.63	8.56	9.17	9.76	9.65
Australia	10.50	9.50	8.90	10.15	10.30	10.40	10.45	10.65	11.50	11.75	11.85
United Kingdom	14.31	10.53	12.75	12.05	12.72	13.98	13.83	13.30	13.89	13.98	13.44
Belgium	9.30	8.76	8.80	9.90	10.58	11.00	11.13	11.42	11.93	12.45	12.02
France	11.04	11.07	9.94	11.56	11.60	12.09	12.59	12.52	14.11	14.44	13.94
Germany	7.28	5.52	6.65	7.65	8.07	7.81	7.91	8.13	8.86	9.72	8.93
Italy	13.92	10.82	10.89	10.81	11.26	11.31	11.28	11.39	11.56	11.63	11.63
Netherlands	8.40	8.11	8.48	8.77	8.83	9.18	9.29	9.41	10.37	11.45	10.59
Austria	8.55	9.00	7.91	8.22	8.26	8.27	8.20	8.20	8.51	8.93	9.50
Denmark	14.57	16.83	17.27	17.76	17.80	18.04	18.28	18.55	19.71	20.37	20.57
Finland	10.92	10.25	9.19	9.53	9.34	9.49	9.58	9.94	10.13	10.38	10.59
Ireland	15.49	11.30	13.44	15.72	16.64	16.64	16.64	15.95	15.95	15.95	16.20
Norway	7.25	8.37	8.19	8.25	8.28	10.19	10.04	10.10	10.15	10.20	10.26
Sweden	9.61	9.84	10.09	10.49	11.01	11.04	11.22	n.a.	n.a.	n.a.	n.a.
Switzerland	4.43	3.75	3.03	3.50	3.63	4.04	4.20	4.48	5.03	5.09	4.96
New Zealand	8.70	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00	10.00
Philippines	13.41	13.40	13.40	13.40	13.30	13.30	13.20	13.40	13.40	13.40	13.40
South Africa	11.00	10.75	9.85	9.40	9.29	9.34	9.44	9.38	9.33	9.32	9.56
Venezuela	7.04	7.24	7.24	7.36	7.35	7.33	7.29	7.38	7.25	7.33	7.40

Domestic corporate bond yields

long-term issues, at or near end of month

	1976	*1977*	*1978*	*1979*				*1980*			
	Dec	*Dec*	*Dec*	*Sep*	*Oct*	*Nov*	*Dec*	*Jan*	*Feb*	*Mar*	*Apr*
United States	7.35	8.30	9.25	9.70	11.00	10.50	10.75	11.88	12.88	13.75	10.75
Canada	9.58	9.71	10.34	11.09	11.97	11.72	12.07	12.80	13.35	13.90	12.84
Japan	8.81	6.68	6.94	7.79	8.11	8.34	8.34	8.12	8.12	8.75	9.50
Australia	12.00	11.00	10.25	11.15	11.40	11.65	11.65	11.90	12.60	12.75	13.10
United Kingdom	15.96	11.88	13.53	12.88	13.40	14.89	14.96	14.25	14.55	14.99	14.66
Belgium	11.88	9.85	9.58	10.92	11.34	11.70	11.93	11.82	12.22	n.a.	n.a.
France	11.39	12.09	10.27	11.88	11.84	12.33	12.92	12.91	14.57	14.80	14.37
Germany	7.47	5.92	6.80	7.80	8.00	8.40	8.20	8.10	8.50	9.60	10.00
Italy	16.90	10.71	10.12	9.92	9.99	9.90	10.22	10.22	10.56	11.12	11.85
Netherlands	8.22	7.90	8.62	8.82	9.10	9.50	9.95	9.78	10.54	12.05	10.85
Norway	7.65	8.59	8.37	8.63	n.a.	10.94	10.53	10.71	10.75	10.80	10.85
Spain	10.86	11.58	12.17	12.04	11.54	11.40	11.77	11.34	11.18	11.19	11.45
Sweden	9.82	9.83	10.03	9.65	9.75	9.81	10.21	10.43	10.78	10.85	11.00
Switzerland	5.50	4.96	4.85	5.27	5.28	5.44	5.53	5.61	5.63	6.06	5.77
Korea	21.70	19.60	24.00	29.20	29.20	31.00	32.50	32.50	31.00	31.00	31.00
Mexico	15.56	17.56	20.37	21.57	21.63	22.43	21.99	23.00	23.55	n.a.	n.a.
Venezuela	10.37	10.39	12.43	13.35	13.59	14.06	14.55	13.63	13.87	14.86	15.94

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World Financial Markets

Morgan Guaranty Trust Company of New York

June, 1980

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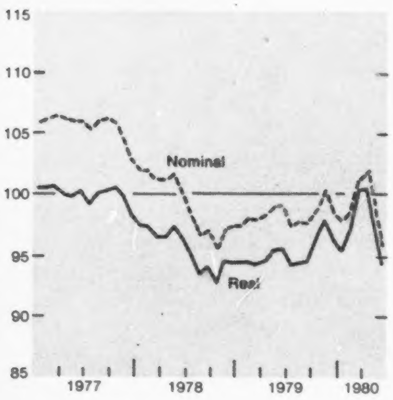
Effective dollar exchange rates
monthly averages, index, March 1973=100



latest plotting June 24

Foreign exchange market developments

The weakening of the dollar over the past three months has completely reversed the dollar's sharp rise on an effective basis between November of 1978 and early April 1980 (see chart). It has brought the trade-weighted value of the dollar about 9% below its peak in April of this year, and it is even about 1% below its level last fall, shortly before the October 6 tightening of U.S. monetary policy.

The dollar's depreciation has been particularly large against the Japanese yen, where it is now more than 20% below its peak on April 7 and 4% below its level last fall (see Table 1). The dollar has also declined by nearly 15% *vis-à-vis* the Swiss franc since early April and by about 11% against the German mark and most other European currencies, although it is still above its lows recorded in late September 1979 against the continental European currencies.

Central bank intervention to support the dollar continues to be very moderate, compared with the heavy intervention to limit the dollar's appreciation in the first three months of this year. The pace of official intervention picked up for a while in the latter part of May and in early June, especially by the Bank of Japan. Japan's official reserves rose by $2.4 billion in May and are estimated to have risen by another $1 billion in early June. Germany's reserves were up by about $600 million in May and the first half of June.

The main factor contributing to the dollar's weakness has been the sharp movement of interest rate differentials, particularly at the short end of the maturity spectrum. U.S. money market rates have now plunged by about ten percentage points from their peaks in early April and are more than four percentage points below their end-September 1979 levels. Yields on long-term U.S. government bonds are more than three percentage points below their spring peaks and are back to their levels last fall. Interest rates in most foreign industrial countries have declined very little from their peaks. As shown in Table 2, there is now about a two percentage point differential in favor of three-month Euro-yen deposits and little or no differential in favor of Euro-dollar deposits *vis-à-vis* Euro-mark deposits compared with positive differentials in favor of Euro-dollar deposits of more than four percentage points and nine percentage points, respectively, in

Table 1

Dollar exchange rates

in foreign currency units per dollar, except Canadian dollar and British pound that are in U.S. cents per foreign currency unit

	Sept 28 1979	*April 7 1980*	*June 24 1980*
Canadian dollar	86.2¢	84.1¢	87.0
Japanese yen	224.5	260.8	216.6
British pound	220.0¢	213.4	233.4
German mark	1.74	1.97	1.77
Swiss franc	1.55	1.87	1.63
French franc	4.09	4.54	4.10
Dutch guilder	1.93	2.14	1.94
Italian lira	801.5	910.8	837.6

Table 2

Three-month Euro-currency deposit rates

in percent per annum

	Sept 28 1979	*April 7 1980*	*June 24 1980*
U.S. dollar	12.75	19.69	9.19
Canadian dollar	11.81	15.62	11.12
Japanese yen	7.31	15.25	11.50
British pound	14.06	18.44	16.75
German mark	7.44	10.19	9.12
Swiss franc	1.75	6.87	5.56
French franc	13.25	14.00	12.50

early April.

The change in interest rate differentials has contributed to large shifts in private capital flows, including some official reserve diversification. It is estimated that net private capital outflows (excluding reinvested earnings on foreign direct investment) from the United States in the current quarter may approach $5-$10 billion, compared with net private capital inflows of $17 billion during the first quarter of 1980.

On the whole, the dollar has held up reasonably well in this period. It has only given up its exceptional strength earlier this year, despite the fact that interest rate differentials are much more adverse than they were last fall and the first part of this year. In fact, many market participants consider the underlying position of the dollar to be much stronger than last fall, when U.S. inflation was accelerating. However, the question remains whether the dollar will now stabilize in the face of divergent economic trends and policies in the United States and in the other major industrial countries.

U.S. economic policy is undergoing a transition away from emphasis on fighting inflation toward increased concern about recession and mounting unemployment. Preliminary estimates by the Department of Commerce indicate that U.S. real GNP plunged at a 8.5% annual rate in the second quarter of this year, marking the second-largest decline since the 1930s. The downturn already has contributed to a sharp rise in the unemployment rate, from 6.2% in March to 7.8% in May, and further increases in unemployment are anticipated in the months ahead as the U.S. economy slides deeper into recession. The slump is expected to persist through the final quarter of this year and possibly into early 1981, and it could generate a drop of real GNP of 4% or more from peak to trough.

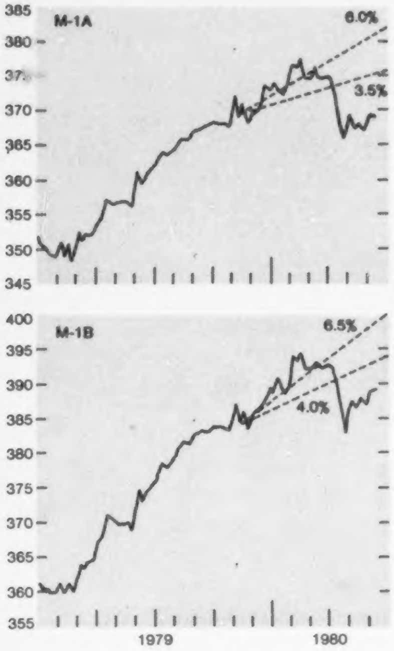
The Federal Reserve has not altered its long-range money supply targets (for M-1A and M-1B) in the wake of the latest U.S. economic developments. However, it has intensified efforts to bring the monetary aggregates, which are currently below the lower limits of their long-term targets (see chart), within the target bands. Nevertheless, total bank reserves remain virtually unchanged since March on account of a large drop in the amount of borrowed reserves as the Fed funds rate plunged below the discount rate. Recently, the Fed has lowered the discount rate by two percentage points to 11% in order to bring the rate more in line with money market rates. Last month, the Federal Reserve also began to phase out the credit restraint program that was put into effect in March. The base for calculating managed liabilities was raised by 7½%, and the marginal reserve requirement was cut from 10% to 5%.

The Federal Reserve still has some leeway for injecting reserves into the banking system, given the divergence between the money supply and the levels targeted, as well as the weak demand for money and credit anticipated in the months ahead. As a result, further declines in U.S. interest rates cannot be ruled out in the near term, even though money market rates have begun to plateau in the second half of June.

At the same time, pressures on the federal government to pursue a more expansionary fiscal policy are beginning to build. The Carter administration has already conceded that the prospects for balancing the budget in the next fiscal year, which begins on October 1, have been eliminated as a consequence of the steeper than anticipated U.S. recession. The adminis-

U.S. money supply and target ranges

in billions of dollars



tration reportedly is beginning to consider a tax cut of perhaps $25-$30 billion for the next fiscal year, which could result in a larger deficit than the $45 billion figure projected for the current fiscal year. Sentiment for a tax cut is likely to receive bipartisan support, which conceivably could lead to passage of a tax cut bill before Congress is scheduled to recess in early October prior to the election in November.

With regards to the situation abroad, there is still very little evidence of a shift in economic policies away from fighting inflation. In part, this reflects the fact that the pace of economic activity in a number of countries such as Japan, Germany, France, and Italy held up surprisingly well in the first quarter of this year, although there are some signs of economic weakening in Germany and other European countries this quarter, particularly in the consumer sectors. The monetary authorities in these countries and in the United Kingdom are focusing on controlling the monetary aggregates and reducing inflation and are prepared to accept the consequences of slower growth and higher unemployment.

The British government is determined to curb consumer price inflation, which was running at about a 24% annual rate in the three months ended April, by slowing the rate of money supply expansion and reducing the government's budget deficit. The money supply (sterling M-3) in the eleven months to mid-May increased at an 11½% annual rate, which was above the upper end of the government's 7%-11% target range. The money supply, moreover, has been downward biased by the Bank of England's controls program (the corset), and the expiration of the corset this month will lead to a one-time boost to money supply growth. This is likely to delay an interest rate cut even though the British economy is now clearly in recession and the unemployment rate has climbed to 6.2%, while sterling has reached its highest level on a real effective basis since 1970, the first year for which an index is computed.

Similarly, the German authorities continue to regard inflation as the main threat to the economy. While the rate of consumer price inflation has been contained to about 6% in recent months on a year-over-year basis, manufacturing prices and construction prices have been climbing at faster rates — 8% and 12%, respectively. Germany's central bank money has been growing near the lower limit of the 5% to 8% annual growth range set by the Bundesbank in late 1979. However, the authorities point out that this slow growth rate is related in part to special factors. These considerations as well as official expectations of continued moderate growth have encouraged the authorities to persist with a fairly restrictive monetary policy.

In contrast to Germany and the United Kingdom, there are some indications that short-term interest rates in Japan may be starting to ease. Wholesale price inflation has begun to wind down as a consequence of the recent strengthening of the yen, the softening of commodity prices, and declining unit labor costs. The Japanese authorities, however, still remain concerned about the consequences of higher oil prices. While the new government reportedly will consider a decrease in the discount rate next month, any reduction is expected to be moderate, given the country's strong economic performance to date. Nevertheless, some weakening is anticipated in the second half of this year, mainly as a consequence of less rapid export growth, slower expansion of

Table 3

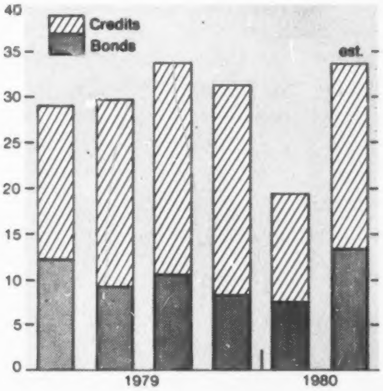
Publicized new international bond issues and medium-term Euro-currency bank credits

in billions of dollars

	1979		*1980*
	Year	*Jan-Jun*	*Jan-Jun*
International bond issues	41.0	21.9	21.2
Euro-bond issues	18.7	10.7	12.3
U.S. dollar	12.6	6.7	9.0
German mark	3.6	2.3	1.7
Other currencies	2.5	1.7	1.6
Foreign bond issues	22.3	11.2	8.9
U.S. market	4.5	2.3	2.0
Swiss market	9.8	5.6	3.4
German market	5.4	1.9	2.7
Japanese market	1.8	1.1	0.5
Other markets	0.8	0.3	0.3
Euro-currency bank credits	82.8	36.9	31.9
TOTAL	123.8	58.8	53.1

Gross publicized new international bond issues and Euro-currency bank credits

in billions of dollars



real personal incomes, and continuation of the Bank of Japan's restrictions on bank credit expansion through at least the third quarter of 1980.

Although the divergence of economic policies and interest rates in the United States and abroad could place occasional pressures on the dollar, these pressures are apt to be moderate and transitory for several reasons. First of all, while interest rate differentials are likely to remain adverse to the dollar in the months ahead, it is unlikely that the differentials will continue to widen materially. There are already some indications that U.S. interest rates are beginning to plateau, and foreign interest rates can be expected to ease in due course in a number of foreign countries once the signs of economic slowing become more visible. Interest rate differentials could even turn favorable to the dollar once the U.S. economy bottoms out and economic recovery contributes to more rapid money supply expansion and upward pressure on U.S. interest rates.

A second factor that should contribute to dollar stability is the favorable outlook for the U.S. trade and current accounts. The U.S. recession already has resulted in declines of U.S. merchandise imports in March and April and in a marked reduction in the U.S. trade deficit from the levels in the first two months of the year. It is now anticipated that the U.S. current account, which was in deficit at a $10½ billion seasonally adjusted annual rate in the first quarter of this year, will register a surplus in the current quarter. The current account is expected to remain in surplus in the second half of this year, implying a position of near equilibrium for 1980 as a whole. This situation contrasts favorably with that for Germany and Japan, where the current account deficits are running at seasonally adjusted annual rates of $13 billion and $19 billion, respectively.

Finally, the slump in U.S. economic activity also has contributed to a lowering of U.S. inflation and of inflationary expectations. In the two months ended May, producer prices of finished products increased at an annual rate of less than 5%, compared with a 17% rate in the first quarter of this year. Consumer price inflation also decelerated in April and May to an 11½% annual rate from a 17% rate in the first quarter. Increases in consumer prices are now expected to be down to single-digit rates in the second half of this year, mainly because of the drop in mortgage interest rates and the slowing of oil and other commodity price increases. As a consequence, it now appears that the U.S. inflation rate over the next twelve months, whether measured on the basis of wholesale prices or consumer prices, will be much closer to the average of the principal trading partners of the United States.

International credit markets

After a slow start at the beginning of this year, the volume of publicized borrowing in the international credit markets picked up markedly in the second quarter, particularly in June. Borrowers have raised more than $53 billion of gross new funds in the international bond and Euro-currency bank credit markets during the first half of this year, compared with nearly $59 billion in January-June 1979 (see Table 3).

Led by a sharp increase in the amount of fixed-rate, dollar-denominated Euro-bond issues since April, the volume of new international bond issues totaled $21 billion in the first six months of 1980. This

Table 4

Major non-oil LDCs: External borrowing requirements and actual borrowing from international credit markets in 1980

in billions of dollars

	Projected gross commercial borrowing requirement[b]	*Publicized new international bond issues and medium-term Euro-currency bank credits*		
		Amount needed for full year[c]	*First half actual*	*Second half need*
Twelve major borrowing countries[a]	34	20½	5.4	15.1
Brazil	12	7½	1.5	6.0
Korea	4½	2¾	1.1	1.7
Chile	4	1½	0.4	1.1
Argentina	3	2	1.2	0.8
Thailand	3	1	0.6	0.4
Taiwan	2	2	0.1	1.9
Philippines	2	2	0.4	1.6

a Argentina, Bolivia, Brazil, Chile, Colombia, India, Ivory Coast, Korea, Philippines, Taiwan, Thailand, and Turkey.

b See text for explanation. Rounded to nearest $½ billion.

c Based on patterns of financing in recent years. Rounded to nearest $¼ billion.

nearly matched last year's pace. In contrast, in the Euro-currency bank credit market borrowers negotiated only about $32 billion of gross new facilities in the first half of this year, substantially below the nearly $37 billion total for the same period last year. Even after adjusting for the reduced amount of advanced refinancing of existing loans — $3.7 billion so far this year versus $5.5 billion in the first half of 1979 — this year's total of new credits is about $3 billion less than in the first half of last year.

Industrial countries as a group have raised almost $3½ billion more in the international credit markets in the first half of this year than in the same period a year earlier. In the Euro-currency bank credit market alone, this group of countries has increased the pace of their borrowing by more than $4 billion, from $10.6 billion in January-June 1979 to $14.9 billion in the first half of this year (see Statistical Appendix). Both the major countries as well as the smaller nations have boosted their borrowings. Most smaller industrial countries face substantial increases in their borrowing requirements this year. However, most of them are well underway toward meeting their increased needs.

The gross borrowing needs of the oil-exporting developing countries as a group (both the major borrowing members of OPEC and those outside of OPEC) have been sharply reduced this year by higher oil prices. Nevertheless, their total publicized borrowings in the international credit markets have remained fairly high at nearly $9½ billion in the first half of this year, compared with approximately $10 billion in the first half of 1979. For the most part, this group of countries enjoys ample access to the international credit markets.

The non-oil LDCs, however, have borrowed only about $7 billion in the international credit markets in the first half of 1980, compared with more than $12 billion in the same period last year. This raises some questions about the widely-held view that major problems in the so-called "recycling" process will not emerge until next year. The evidence of the sharply reduced amounts of gross borrowing by a number of the major non-oil LDCs, in the face of potentially higher financing requirements, suggests that some countries may already be encountering difficulties in obtaining adequate financing.

Table 4 shows that the projected gross commercial borrowing requirements of twelve major non-oil LDCs, which accounted for more than three quarters of all non-oil-exporting LDCs' borrowing in the international credit markets last year, could reach as much as $34 billion this year. These projected requirements are based on estimated current account deficits *plus* amortization payments on existing external debt *minus* inflows of foreign direct investment, loans received from official bilateral and multilateral sources (including the IMF), and changes in official foreign exchange reserves. Based on the patterns of financing in recent years, these twelve countries as a group could be expected to meet approximately 60%, or about $20½ billion, of their projected gross needs through publicized medium- and long-term borrowings in the international credit markets. The remainder normally comes from other commercial sources, including suppliers' credits, short-term bank credits, and unpublicized medium-term borrowings. However, in the first half of 1980 these twelve countries obtained less than $5½ billion via publicized borrowings, implying a need to raise as much as $15 billion during the remainder of this year.

While the situation varies from country to country, for a number of major non-oil LDCs the test of whether the "recycling" process goes smoothly enough to ensure adequate financing to meet this year's projected needs is yet to come. If some of these countries are going to obtain the large amounts of funds required from the credit markets during the second half of this year, they probably will at least have to agree to wider lending spreads. There has already been some movement in this direction, with Brazilian entities, for example, now borrowing at spreads of 1⅜%-1½% over LIBOR, compared with spreads averaging only ½% over LIBOR for a number of industrial-country borrowers.

If the medium-term syndicated Euro-currency bank credit market is not forthcoming even with higher returns for the lenders, some non-oil LDCs may be forced to reduce their overall borrowing requirements through stronger adjustments efforts, implying less economic growth. Other major alternatives include increased resort to short-term borrowing and suppliers' credits, and/or increased usage of IMF credit. As regards the latter, more use is being made of IMF resources, which are available to individual countries in large amounts. For example, Turkey recently received a $1.65 billion, three-year standby credit from the Fund, an amount equivalent to more than six times its quota. By the end of this year the entire IMF Witteveen Facility may be committed.

French external payments prospects

Last year, when the current account balances of Germany, Japan, and many other industrial nations deteriorated rapidly into sizable deficit positions, France recorded a surplus for the second year in a row. This relatively strong external payments performance represented one of the more important successes of the policies initiated several years ago by the government of Prime Minister Raymond Barre. In the mid-1970s, France had experienced a large deterioration in its current account balance, but it improved by nearly $10 billion between 1976 and 1978.

This record of success in restoring external equilibrium has been marred by the rapid deterioration in the French trade and current accounts since the beginning of this year. Largely under the impact of sharply higher oil prices, the current account swung into a deficit of approximately $10 billion in the first quarter of 1980 at a seasonally adjusted annual rate, and based on trade figures for April-May, the second-quarter deficit could be almost as large.

The recent deterioration of the French trade and current accounts has been accompanied by an acceleration of inflation that threatens to erode the international price competitiveness of French industry. In the three months ended April 1980, consumer prices increased at a 16% annual rate. So far these developments have not produced any pressures on the franc.

The Barre Plan

The policies pursued by the government to restore external equilibrium and franc stability in the aftermath of the 1974-76 experience included longer-term measures to induce a restructuring of French industry for the purpose of making it more competitive internationally and steps to reduce the country's dependence on imported oil. Among those directed at improving the competitiveness of French industry has been the gradual liberalization of domestic prices, begun in early 1978. By gradually lifting its controls over domestic prices, the government has encouraged increased competition among French producers, and thereby has allowed market forces to exert a stronger influence on the allocation of resources in French industry. Government incentives have been offered to increase both private capital investment and exports. The viable firms have become more profitable, made new investments, and created new jobs. Many unprofitable firms have been allowed to go bankrupt in the last few years, and those that could be put back on a sound footing were allowed to shed surplus workers and close obsolete plants. There has been direct government intervention in some industries, such as steel and shipbuilding, primarily to assist in rationalization and to allow unemployment to occur gradually rather than abruptly. The government also has supported industries with strong export potential, including autos, aircraft, armaments, and atomic energy equipment.

These policies have produced some favorable results. Productivity gains in French manufacturing industry have been quite impressive, averaging 5% per annum in 1977-79. Corporate profits increased by about 13% in 1978 and by a further 14½% in 1979. Partly as a consequence, business plant and equipment investment grew by 2.7% in 1978 and 3.7% in 1979 in real terms, and it has remained buoyant so far this year. Last year, French companies were able to finance 77% of their investment out of their own resources, up from 61% in 1976, attesting to their improved financial condition. Also in 1979, exports expanded by 10% in volume, as French manufacturers increased their share of world markets.

The government's efforts to reduce dependence on imported oil have included numerous energy conservation measures, the rapid passing on of higher oil prices to final consumers, raising public utility charges to eliminate operating deficits and to provide financing for energy investments, and active promotion of alternative energy sources (particularly nuclear power). The results of these and other steps have been quite impressive. Energy consumption per unit of real GDP declined by 6% between 1973 and 1979 (see Table 5). Oil consumption alone was reduced by more than 7% over this period, and as a percent of total energy consumption it dropped from 71% in 1973 to 60% last year.

Efforts to reduce inflation have been less successful, despite the fact that French authorities, by maintaining a relatively stable exchange rate on an effective basis in recent years, have forced domestic producers to face increased foreign price competition. Consumer price

Table 5

France: Energy use and oil imports

	1973	*1979*	*1980*
Energy use *index numbers, 1973=100*	100	108	110
Energy use per unit of output[a] *index numbers, 1973=100*	100	94	92
Oil consumption *as percent of total energy use*	71	60	58
Net oil import volume *in millions of bpd*	2.61	2.43	2.31
Unit value (CIF) of net oil imports *in dollars per barrel*	3.09	18.38	34.0
Value of net oil imports *in billions of dollars*	2.9	16.3	28.7

[a] ratio of oil-equivalent energy use to real GDP

inflation remained above the 9% rate in 1977-78, and climbed to nearly 12% last year. In recent years, the government has had only partial success in its attempt to limit wage and salary increases, except for the lowest income groups, to the rise in the cost of living.

The efforts to restore external equilibrium and to curb inflation have entailed the acceptance of relatively modest economic growth since 1976. Real GDP growth averaged only 3¼% per annum during 1977-79, including a 3.4% advance last year. While this subdued performance has brought French growth closely in line with the weighted average of its major trading partners, it also has resulted in a worsening of unemployment. By May 1980 the number of unemployed had reached nearly 1½ million, or 6½% of the labor force.

Table 6

France: trade and current account

in billions of dollars

	1976	*1977*	*1978*	*1979*	*1980*
Trade balance, customs basis, (FOB/CIF)	—8.6	—6.9	—5.2	—8.9	—19.5
Food	1.4	0.0	1.2	2.6	3.2
Other raw materials	—2.6	—2.7	—2.8	—3.6	—3.9
Fuels	—12.8	—13.2	—13.8	—19.3	—32.7
Oil	—11.2	—11.2	—11.5	—16.3	—28.7
Manufactures	5.8	9.0	10.2	11.4	13.9
Trade balance, payments basis, (FOB/FOB)	—4.6	—2.7	0.7	—1.9	—10.5
Net invisibles	—1.3	—0.3	3.0	3.1	4.0
Contract work abroad	1.4	1.8	2.9	3.1	3.5
Tourism	*	0.5	1.6	1.7	2.0
Investment income	0.4	0.4	1.0	1.6	1.9
Immigrants' remittances	—1.4	—1.5	—1.8	—2.3	—2.6
Other invisibles	—1.7	—1.5	—0.5	—1.0	—0.8
Current account	—5.9	—3.0	3.7	1.2	—6.5

* less than $100 million

External payments developments

As shown in Table 6, France's current account performance improved from a deficit of nearly $6 billion in 1976 to a surplus of $3.7 billion in 1978. In 1979, even though net oil imports climbed by nearly $5 billion, the current account surplus narrowed by only $2.5 billion, to $1.2 billion.

Underlying this relatively favorable performance were substantial improvements in both manufactures trade and net invisibles. The net surplus on manufactures trade doubled between 1976 and 1979. Much of this large gain occurred in 1977 when French economic growth fell below that of its trading partners. At this time French manufactures also were benefiting from the increase in their international price competitive position, which had resulted from a 10% real effective depreciation of the franc in the preceding year. Improvement in the manufactures trade balance continued in 1978 and 1979, but at a slower pace.

The balance on invisibles transactions swung from a deficit of $1.3 billion in 1976 to a surplus of more than $3 billion in 1979 (see Table 6). Sizable net gains were recorded in earnings from technical services and construction work abroad. Net tourism earnings grew substantially during this period, as France benefited from the rapid growth of German tourist expenditures.

Recent current account deterioration

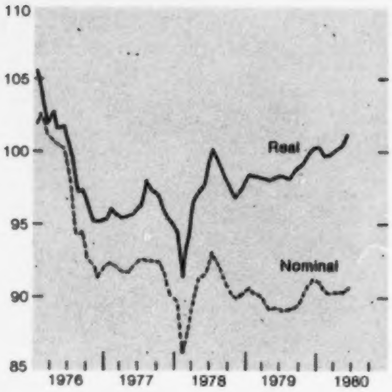
The rapid deterioration in the trade and current account since the beginning of this year has been largely due to a sharp rise in net oil imports. In the first five months of 1980 the French trade deficit was nearly $14 billion at a seasonally adjusted annual rate, compared with about $2 billion for all of last year. Unadjusted customs trade data for January-May 1980 indicate that just about the entire $6½ billion deterioration of the trade balance from the same period a year earlier was caused by higher energy imports. A small worsening of the manufactures trade balance was offset by a larger surplus on net agricultural trade.

Some narrowing of the trade deficit is likely during the balance of this year, but for the year as a whole the deficit could still amount to approximately $10½ billion. Net oil imports are expected to increase by about $12½ billion, to nearly $29 billion this year. This very large increase will be entirely due to higher oil prices since the volume of French net oil imports is expected to drop by as much as 5%. Oil consumption is likely to fall by 2% or more this year because of the effects of higher prices, a slowing of economic activity, and increases in nuclear power generation. Moreover, additions to oil inventories this year probably will be rather modest compared with the large increments to stocks in 1979. This year's increase in the average price of imported oil could amount to as much as 85%, well above the expected 67% year-over-year increase in the effective average OPEC oil price for 1980. The greater percentage rise in France's average oil import price this year is explained largely by the lags with which increases in OPEC export prices near the end of 1979 are reflected in French oil imports.

The volume of net oil imports is likely to fall again next year. In fact, the recently revised French energy program calls for the consumption of oil, most of which will continue to be imported, to decline by at least 25% over the next decade, and perhaps by more than 35%. The new plans call for major conservation efforts as well as increased reliance on alternative sources of energy, with oil consumption dropping from the present 60% share to one third or less of total energy use by 1990. Part of this planned reduction in oil dependency is expected to come from increased use of natural gas, most of which will also be imported and at prices that soon will rise to oil-equivalent levels. However, by far the largest contribution to oil substitution is expected from nuclear power, development of which is already well advanced in France. By 1990, France expects to meet 30% of its total energy needs from nuclear power, up from less than 5% last year. Approximately three quarters of all electricity would be generated by nuclear power plants by 1990 versus 17% last year.

The anticipated narrowing of the French trade deficit during the remainder of this year rests heavily

French franc: effective exchange rates
monthly averages, index, March 1973=100



latest plotting: June 24

on an increase in the surplus on net manufactures trade, which, in turn, will depend mainly on a slowing of import growth. The erosion of real incomes and the absence of employment gains is likely to cause a substantial weakening of consumer expenditure, which had been fairly buoyant earlier this year. The slowing of both domestic and foreign demand could lead to a slowing of capital expenditure outside the energy sector. Although real GDP growth for the year as a whole could be 2.7%, in the second half of 1980 it may be close to zero. Accordingly, import demand should slacken considerably. As regards export markets, only OPEC, which accounted for 8% of France's total exports last year, will be a strong growth market. On balance, France should be able to realize a $2-$3 billion improvement in its net manufactures trade surplus this year despite the weak start.

Continued improvement in net invisibles earnings could also provide a modest offset to the large rise in the oil import bill. Another substantial increase in net receipts from contract work abroad and a further rise in net tourism revenues will account for most of the improvement. Nonetheless, the current account deficit for the year as a whole could reach as much as $6 ½ billion versus last year's $1.2 billion surplus. Even this outcome would require a sizable improvement between the first and second halves of this year, with the deficit narrowing to about a $3-$4 billion annual rate in the second half.

The franc

Despite the large trade and current account deterioration and the sharp acceleration of inflation since the beginning of this year, the franc has remained firm within the EMS and relatively stable on an overall trade-weighted average basis.

In the context of the OPEC surplus ($120 billion in 1980) and of the large current account deficits expected for many other industrial countries, especially Germany ($15 billion) and Japan ($20 billion), the prospective $6½ billion deficit of France does not loom quite so large.

Interest rate differentials also have favored the franc. The authorities have kept domestic interest rates relatively high, especially *vis-à-vis* Germany, at both the short and long ends of the market. The sharp drop in U.S. interest rates has also contributed to the favorable rate differentials. These differentials appear to have induced sizable net capital inflows. French entities have been fairly large borrowers in the international bond and credit markets this year: In addition, France appears to have attracted sizable amounts of foreign portfolio investment, including a considerable amount of OPEC funds. Payments leads and lags also seem to have been highly favorable.

The continued stability of the franc could be threatened by France's relatively high inflation rate and the consequent further erosion of the international price and cost competitiveness of French manufactures. By now virtually all of the competitive edge gained by franc depreciation in 1976 has been eroded by France's relatively high price and cost inflation, particularly over the past year and a half. The real effective exchange rate of the franc in mid-June 1980 was nearly 4% above its end-1978 level (see chart). Similarly, unit labor cost increases in French industry have exceeded the average of those in other major industrial countries by more than 7% since the end of 1978 after adjusting for exchange rate changes.

The government is determined to

trim inflation at least to the average rate of the country's major trading partners. However, it may continue to fall short of its objectives in this area. Although the government's budget deficit for 1980 was initially projected to be FF 31 billion versus last year's FF 37 billion, it now appears that revenue shortfalls and supplementary expenditures could push the deficit well above last year's level. The tightening of credit restraint earlier this year and the maintenance of relatively high interest rates were intended to bring money supply growth under better control. However, while the year-over-year growth of M2 has recently fallen to 13%, it remains well above this year's 11% target. Mr. Barre continues to urge wage restraint, warning that France cannot afford increases in real wages this year. Nonetheless, the government expects that increases in nominal wages will be about 13% this year, down only slightly from last year's 13.7% rise. Thus, although some easing of inflation is likely in the second half of this year, the government's latest forecast of about 12.5% increase in consumer prices from December to December could be exceeded by at least a full percentage point. As a result, France faces an adverse inflation differential of as much as 3% in the year ahead.

There does not appear to be any near-term threat to the franc's stability within the EMS. With the franc now at the top of the EMS band, there is, of course, scope for some easing of the exchange rate within the 2¼% band. And, given the apparent intention of the German central bank to persist at least through the summer in its monetary restraint, French authorities probably will be compelled for some time to maintain interest rates close to their present, relatively high levels. However, the further erosion of the international price competitiveness of French manufactures implied by the prospective adverse inflation differential could eventually raise serious questions about maintaining the franc's current parity within the EMS, especially in the context of slowing economic growth and rising unemployment.

Statistical appendix

for key to data in tables see March 1980 issue of
World Financial Markets

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Information herein is from sources considered to be reliable but is furnished without responsibility on the part of Morgan Guaranty Trust Company.

Effective exchange rates

Index numbers, March 1973=100. The index of the effective exchange rate for a currency is a measure of that currency's trade-weighted average appreciation or depreciation vis-à-vis the currencies of 15 other major countries. The exchange rates used in the construction of this index are the averages of daily noon spot exchange rates in New York for months and for weeks ending on dates shown. The trade weights used are based on 1976 bilateral trade in manufactures.

	United States	Canada	Japan	United Kingdom	Germany	France	Italy	Belgium	Netherlands	Switzerland	Austria	Denmark	Norway	Sweden	Australia	Spain
pre-June 1970 parities	118.5	94.9	79.3	116.2	91.6	97.5	110.9	95.9	98.2	88.3	97.8	97.9	98.1	102.2	92.2	98.4
Smithsonian central rates	107.0	101.3	88.7	116.0	95.4	96.1	108.3	97.0	99.1	91.6	98.0	96.0	96.3	100.5	91.7	98.1
1979																
June	99.1	84.1	116.1	73.9	135.5	89.4	55.2	109.6	117.6	166.3	116.3	98.2	101.7	88.5	74.2	79.0
July	97.3	84.2	115.7	77.3	136.0	89.1	55.4	110.1	117.3	166.3	116.7	98.6	100.6	88.2	73.7	76.9
August	97.7	83.8	115.1	76.6	135.9	89.1	55.6	110.1	117.6	165.8	117.3	98.3	101.2	88.5	74.0	77.2
September	97.6	84.2	112.3	74.5	137.1	89.4	55.4	110.5	118.2	168.8	119.4	99.1	101.6	88.3	74.3	76.6
October	98.9	83.7	108.8	73.0	138.3	89.9	54.6	110.9	118.0	167.7	120.5	98.8	102.6	88.5	74.6	77.0
November	100.2	83.6	102.4	72.7	139.7	90.7	54.4	110.8	118.3	166.0	121.3	98.5	102.0	88.3	74.7	76.7
December	98.7	84.0	103.5	73.9	140.2	91.2	54.4	110.4	119.4	167.5	121.5	94.6	101.3	88.1	74.2	75.3
1980																
January	97.9	84.3	104.2	75.6	139.9	91.0	54.4	110.4	119.4	166.6	121.6	93.5	101.8	87.9	73.9	75.2
February	98.4	85.0	101.7	77.2	139.3	90.5	54.6	110.0	119.1	163.4	121.7	92.9	103.2	88.0	74.2	75.3
March	101.3	84.3	101.9	77.4	137.8	90.2	53.9	109.6	118.7	159.1	121.4	91.7	104.2	88.2	75.1	75.5
April	102.3	83.4	101.6	78.2	137.1	90.3	53.4	109.9	118.1	161.1	121.0	91.2	104.6	88.4	75.5	73.3
May	98.4	83.6	109.4	78.6	138.1	90.3	53.3	110.6	118.2	163.7	121.4	91.5	103.5	88.1	74.8	71.5
2	100.2	82.8	104.6	77.9	138.2	90.5	53.5	110.6	117.9	164.0	122.0	91.7	104.0	88.6	75.1	72.3
9	99.3	83.0	107.5	78.2	138.4	90.3	53.4	110.0	118.2	164.8	121.6	91.3	103.7	88.4	74.9	71.8
16	98.5	83.4	109.9	78.2	138.3	90.2	53.4	110.6	118.4	164.1	121.7	91.4	103.5	88.1	74.9	71.4
23	97.7	84.1	111.1	78.9	137.8	90.4	53.3	110.6	118.3	163.3	121.5	91.4	103.3	88.0	74.6	71.2
30	96.8	84.4	111.8	79.5	137.8	90.5	53.4	110.7	118.4	163.2	121.5	91.7	103.2	87.9	74.7	71.6
June 6	96.8	84.6	112.4	78.7	137.9	90.5	53.3	110.7	118.5	163.6	121.5	91.8	103.3	87.9	74.7	71.9
13	95.8	85.1	114.5	78.6	138.0	90.5	53.2	110.7	118.7	165.0	121.7	91.9	102.9	87.7	74.6	71.3
20	95.9	85.0	114.7	78.5	137.9	90.6	53.0	110.9	118.7	164.8	121.7	92.0	102.9	87.8	74.8	71.2

Real effective exchange rates

Index numbers, March 1973=100. The index of the real effective exchange rate is the index of the effective exchange rate adjusted for inflation differentials which are measured by wholesale prices of nonfood manufactures. Exchange rates and trade weights used in the construction of this index are the same as those used for effective exchange rate indices. Annual figures are averages of months.

	United States	Canada	Japan	United Kingdom	Germany	France	Italy	Belgium	Netherlands	Switzerland	Austria	Denmark	Norway	Sweden	Australia	Spain
1976	100.3	106.7	88.3	96.6	101.2	100.0	92.6	97.9	101.8	110.9	106.1	96.2	99.1	109.1	101.8	105.1
1977	100.0	99.8	93.5	101.6	102.5	96.1	95.6	99.8	103.8	105.2	109.2	97.3	99.8	105.1	91.9	100.8
1978	95.4	92.9	107.2	106.4	103.3	96.3	93.8	99.6	103.7	121.7	109.3	103.5	95.6	96.6	87.3	97.0
1979	95.5	92.9	96.1	118.6	104.3	98.6	93.5	97.1	100.2	115.4	107.9	101.6	90.9	99.1	86.0	109.1
1979																
June	96.1	92.9	96.3	119.9	103.7	98.2	93.1	96.3	99.4	116.9	106.2	98.7	90.5	100.1	85.6	112.4
July	94.2	92.9	96.6	127.5	103.7	98.2	93.1	96.6	98.4	115.6	106.3	100.1	88.9	99.8	85.3	112.0
August	94.4	92.7	96.7	126.6	103.3	98.1	94.2	96.0	98.8	113.8	106.3	101.8	89.3	100.5	86.0	112.6
September	94.6	93.3	94.6	123.3	103.8	98.8	94.6	95.8	99.0	115.3	108.0	103.7	89.6	100.1	86.1	111.6
October	96.8	92.8	90.8	121.4	104.5	99.0	93.9	96.1	98.3	113.3	108.9	103.3	90.7	100.0	86.2	110.9
November	98.2	92.3	85.3	121.2	105.7	99.8	93.8	96.1	98.0	112.1	109.5	101.2	90.3	100.6	86.7	109.8
December	96.5	92.9	86.8	123.2	105.8	100.2	95.2	95.4	98.4	112.6	109.1	96.8	90.4	100.1	86.2	107.6
1980																
January	95.6	94.5	87.0	128.1	104.4	100.1	96.0	94.5	99.7	109.8	109.1	95.2	91.0	100.6	85.3	108.3
February	96.5	94.7	85.4	131.9	103.7	99.8	96.9	94.1	97.6	107.0	109.6	94.9	93.1	99.8	86.9	108.3
March	100.2	92.0	86.6	132.8	102.4	99.8	95.7	93.0	97.0	103.8	108.9	94.3	94.4	100.1	87.0	108.0
April	101.5	90.2	86.9	136.9	101.5	100.0	94.9	93.2	96.0	104.4	108.1	93.4	94.3	100.2	87.2	104.6
May	96.5	92.0	94.6	135.0	102.0	100.5	96.1	93.7	95.8	105.9	108.9	94.4	93.4	100.3	87.0	102.8

Euro-currency market size

based on foreign-currency liabilities and claims of banks in major European countries, the Bahamas, Bahrain, Cayman Islands, Panama, Canada, Japan, Hong Kong, and Singapore
billions of dollars (rounded to nearest $5 billion), at end of period

	1971	1972	1973	1974	1975	1976	1977	1978	1979		
									Jun	Sep	Dec[r]
Estimated size											
Gross	145	200	305	375	460	565	695	895	965	1070	1155
Liabilities to nonbanks	30	35	55	75	80	100	125	170	200	220	230
Liabilities to central banks	15	25	40	60	70	85	110	120	130	140	155
Liabilities to other banks[a]	100	140	210	240	310	380	460	605	635	710	770
Net	85	110	160	215	250	310	380	485	530	580	600
Claims on nonbanks	35	45	65	100	115	150	195	245	265	280	295
Claims on central banks and on banks outside market area[b]	35	45	75	95	115	135	155	195	220	245	245
Conversions of Euro funds into domestic currencies by banks in market area[c]	15	20	20	20	20	25	30	45	45	55	60
Euro-dollars as % of gross liabilities in all Euro-currencies	76	78	73	77	78	79	76	74	73	72	72

a Includes unallocated liabilities
b Includes unallocated claims
c in European market area only
r revised
p preliminary

Euro-currency deposit rates

prime banks' bid rates in London, at or near end of month

	1976	1977	1978	1979			1980				
	Dec	Dec	Dec	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
Euro-dollar:											
overnight	4.63	7.12	10.62	14.25	12.87	14.00	13.50	13.75	19.25	12.25	9.37
7-day fixed	4.75	6.31	10.62	14.37	13.00	14.00	13.62	14.62	19.37	12.75	9.50
one month	5.13	6.87	11.00	15.06	13.56	14.37	14.00	16.12	19.25	14.25	9.87
three months	5.00	7.19	11.69	15.69	14.00	14.44	14.37	16.94	19.69	14.37	10.12
six months	5.38	7.50	12.31	15.31	13.94	14.44	14.37	17.00	19.56	13.69	10.25
twelve months	5.56	7.67	12.00	14.25	12.87	12.87	13.81	16.37	18.00	12.75	10.25
Euro-mark:											
one month	4.62	2.19	3.19	8.12	9.12	8.50	8.25	8.75	8.94	9.06	9.37
three months	4.69	2.50	3.31	8.94	8.81	8.56	8.37	9.31	9.69	9.06	9.37
six months	4.75	2.81	3.69	8.87	8.62	8.56	8.44	9.37	10.06	9.00	9.00
twelve months	4.81	3.06	3.81	8.62	8.00	8.12	8.56	9.44	10.00	8.69	8.50
Euro-Swiss franc:											
one month	0.94	1.31	—.06	2.94	4.25	5.19	4.75	3.75	5.87	5.25	5.56
three months	1.44	1.37	0.00	4.00	4.50	5.75	5.37	5.50	7.12	6.12	5.37
six months	2.12	1.87	0.12	4.50	4.62	5.87	5.62	5.75	7.50	6.25	5.37
twelve months	2.50	2.25	0.62	4.12	4.50	5.56	5.62	5.87	7.00	5.62	5.25
Euro-sterling:											
one month	16.37	6.50	12.00	14.37	16.00	16.75	18.50	17.75	18.00	17.25	17.00
three months	16.12	6.62	12.62	15.12	16.50	16.75	18.00	18.50	18.25	17.25	16.75
six months	14.75	7.12	13.25	15.00	16.25	16.75	17.00	18.37	18.37	16.37	16.12
twelve months	14.50	7.37	13.00	14.56	15.12	15.25	16.00	17.87	17.50	15.37	14.75
Euro-French franc:											
one month	12.37	12.25	10.50	13.12	13.12	13.87	12.12	13.12	13.37	12.50	12.31
three months	12.62	13.25	9.87	14.00	13.62	14.00	12.81	13.87	14.12	12.75	12.50
six months	12.62	14.00	9.87	14.00	13.62	14.12	13.37	14.62	14.50	12.87	12.62
twelve months	12.50	13.25	10.25	13.87	13.62	13.75	13.56	14.62	14.87	13.00	12.75
Euro-yen:											
one month	7.00	0.62	—.69	5.87	8.50	7.62	7.75	9.12	15.00	11.50	12.62
three months	6.62	1.81	0.62	7.94	8.75	8.31	8.25	10.12	15.50	12.50	12.25
six months	6.44	2.75	1.87	8.06	8.44	8.62	8.25	10.37	15.00	11.37	11.37
twelve months	6.25	3.25	2.19	7.56	7.56	7.94	8.25	10.25	13.62	10.37	10.25

Euro-currency bank credits

publicly-announced in period, in millions of dollars

	1977	1978	1979	1980			Jan-Jun	
				Apr[r]	May[r]	Jun[p]	1980	1979
Industrial countries	**17 205**	**28 952**	**27 248**	**5 133**	**1 313**	**3 433**	**14 917**	**10 589**
Australia	360	212	941	—	—	291	603	187
Canada	3 292	5 705	1 845	157	—	—	207	400
Denmark	868	2 242	1 205	75	56	500	1 012	390
Finland	314	550	92	200	—	600	950	50
France	2 325	1 915	2 955	79	25	400	612	1 560
Greece	204	509	1 010	595	—	—	659	140
Ireland	440	616	687	—	—	—	—	250
Italy	1 024	2 485	3 708	1 421	50	213	2 597	1 680
Norway	182	1 517	935	115	32	—	298	386
Spain	1 973	2 426	4 184	626	380	346	2 352	1 952
Sweden	1 446	1 872	1 263	—	—	850	1 083	233
United Kingdom	1 992	3 899	795	525	—	—	898	490
United States	826	1 206	2 348	—	295	—	820	848
Other[a]	1 959	3 798	5 280	1 340	475	233	2 826	2 023
Developing countries	**20 976**	**37 300**	**47 964**	**2 844**	**4 082**	**2 828**	**15 572**	**20 996**
Non-OPEC countries	13 494	26 902	35 411	1 971	2 007	1 605	9 012	15 400
Argentina	849	1 461	2 965	192	220	400	1 142	1 587
Brazil	2 814	5 634	6 278	370	200	345	1 205	3 147
Chile	591	1 045	867	198	61	20	369	179
Korea	1 265	2 651	3 258	214	32	—	1 104	1 580
Malaysia	212	858	1 168	—	—	—	—	100
Mexico	2 727	7 250	8 243	346	1 005	277	2 122	4 262
Morocco	797	605	500	—	300	—	300	200
Peru	189	—	596	—	110	25	280	50
Philippines	698	2 073	2 067	25	—	—	349	813
Taiwan	524	255	1 063	—	14	50	64	333
Other[b]	2 828	5 070	8 406	626	65	488	2 077	3 149
OPEC countries	7 481	10 398	12 553	873	2 075	1 223	6 560	5 596
Algeria	723	2 576	1 906	40	—	—	40	1 033
Indonesia	817	1 118	1 061	45	—	—	780	607
Nigeria	1 000	825	1 373	112	—	73	443	607
United Arab Emirates	1 086	726	401	—	1	50	110	360
Venezuela	1 666	2 054	6 830	650	1 744	1 100	4 278	2 418
Other	2 189	3 099	1 373	26	330	—	909	571
Communist countries	**3 394**	**3 767**	**7 325**	**150**	**55**	**271**	**956**	**5 221**
China	—	—	3 395	—	—	—	—	3 125
East Germany	832	642	796	—	55	21	76	436
Hungary	300	700	260	—	—	—	250	10
Poland	19	374	849	—	—	—	30	560
Other[c]	2 243	2 051	2 025	150	—	250	600	1 090
International organizations	**190**	**160**	**275**	—	—	**159**	**409**	**125**
TOTAL	**41 765**	**70 179**	**82 812**	**8 127**	**5 450**	**6 691**	**31 854**	**36 931**

a Includes multi-national organizations b Includes regional development organizations c Includes COMECON institutions p preliminary
r revised

International bond yields

long-term issues, at or near end of month

	1976	1977	1978	1979			1980				
	Dec	Dec	Dec	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
U.S. companies:											
U.S. dollar	7.39	7.95	8.55	10.10	10.07	10.13	10.35	11.27	11.61	10.98	10.39
Swiss franc	5.46	5.31	5.70	6.48	6.54	6.61	6.84	7.27	7.32	7.19	7.23
European companies:											
U.S. dollar	8.56	8.42	9.21	10.79	10.76	10.93	11.61	12.95	13.07	11.94	11.07
German mark	7.38	6.80	6.84	7.40	7.46	7.55	7.74	8.70	9.33	8.36	7.84
Governments:											
U.S. dollar	8.90	8.42	9.12	10.41	10.57	10.66	10.94	12.07	12.17	11.67	11.06

New international bond issues

new issues in period, in millions of dollars

	1977	*1978*	*1979*	*1980*			*Jan-Jun*	
				Apr	*May*	*June*	*1980*	*1979*
By type:								
Euro-bonds, total	**17 771**	**14 125**	**18 726**	**2 357**	**2 030**	**4 602**	**12 332**	**10 667**
by category of borrower								
U.S. companies	1 130	1 122	2 872	490	496	640	1 965	1 675
Foreign companies	7 347	4 540	7 183	619	789	1 702	4 280	3 901
State enterprises	4 667	3 291	4 524	613	413	1 120	3 203	2 733
Governments	2 936	3 643	2 433	500	100	355	1 562	1 481
International organizations	1 691	1 529	1 714	100	232	785	1 192	677
by currency of denomination								
U.S. dollar	11 627	7 290	12 565	2 130	1 580	3 395	9 032	6 742
German mark	4 131	5 251	3 626	55	204	494	1 684	2 278
Dutch guilder	452	394	531	30	—	284	425	285
Canadian dollar	655	—	425	67	43	52	162	347
European unit of account	28	165	253	—	—	—	25	118
Other	878	1 025	1 326	175	178	377	1 050	897
Foreign bonds outside the United States, total	**8 777**	**14 359**	**17 749**	**1 142**	**1 101**	**970**	**6 949**	**8 863**
by category of borrower								
U.S. companies	40	245	217	108	—	25	162	217
Foreign companies	1 421	2 110	3 463	151	347	225	1 306	1 806
State enterprises	2 427	3 163	3 284	59	324	153	1 202	1 071
Governments	2 043	5 771	7 663	81	336	395	2 661	5 088
International organizations	2 846	3 070	3 122	743	94	172	1 579	681
by currency of denomination								
German mark	2 181	3 789	5 379	785	168	170	2 736	1 867
Swiss franc	4 970	5 698	9 777	357	723	634	3 432	5 638
Dutch guilder	211	385	75	—	76	—	107	—
Japanese yen	1 271	3 826	1 833	—	134	139	502	1 099
Other	144	671	685	—	—	27	175	259
Foreign bonds in the United States, total	**7 428**	**5 795**	**4 515**	—	**200**	**900**	**1 989**	**2 335**
by category of borrower								
Canadian entities	3 022	3 142	2 193	—	75	650	1 270	1 094
International organizations	1 917	459	1 100	—	—	—	250	650
Other	2 489	2 194	1 222	—	125	250	449	591
By country of borrower:								
Industrial countries	**23 851**	**24 964**	**31 886**	**2 496**	**2 855**	**5 081**	**17 067**	**17 900**
Australia	1 074	1 218	593	—	—	—	230	426
Austria	1 384	1 027	1 218	—	218	219	802	512
Canada	5 277	4 764	4 197	297	243	1 214	2 427	2 699
Denmark	796	1 018	752	81	160	155	600	383
Finland	358	952	699	—	—	120	317	476
France	1 945	1 286	2 106	337	225	299	1 244	929
Japan	1 979	3 467	5 775	309	427	346	2 193	2 658
Netherlands	682	251	832	76	145	443	820	456
New Zealand	567	744	553	—	—	61	61	127
Norway	1 889	2 751	1 955	20	30	75	578	1 177
Sweden	1 574	876	1 530	540	292	350	1 746	867
United Kingdom	1 915	1 365	1 181	158	309	357	945	695
United States	1 353	2 973	6 767	598	496	665	3 377	4 449
Developing countries	**3 421**	**4 227**	**3 085**	**160**	**100**	**434**	**1 112**	**1 757**
Non-OPEC countries	2 676	2 684	2 667	160	100	434	892	1 482
Brazil	732	843	930	—	—	263	263	447
Mexico	1 282	568	363	90	—	125	289	265
Philippines	129	170	175	—	—	—	—	75
OPEC countries	745	1 543	418	—	—	—	220	275
Algeria	166	721	208	—	—	—	—	183
Venezuela	438	588	55	—	—	—	120	—
Communist countries	**248**	**30**	**75**	—	**50**	—	**50**	—
Hungary	174	—	—	—	50	—	50	—
International organizations	**6 454**	**5 058**	**5 936**	**843**	**326**	**957**	**3 021**	**2 208**
TOTAL	**33 976**	**34 279**	**40 982**	**3 499**	**3 331**	**6 472**	**21 250**	**21 865**

Central bank discount rates

	1976	1977	1978	1979			1980	Current	
	end Dec	end Dec	end Dec	end Jun	end Sep	end Dec	end Mar	June 25 1980	effective since
United States	5.25	6.00	9.50	9.50	11.00	12.00	16.00[a]	11.00	Jun 13, 80
Canada	8.50	7.50	10.75	11.25	12.25	14.00	15.69	11.83	May 23, 80
Japan	6.50	4.25	3.50	4.25	5.25	6.25	9.00	9.00	Mar 19, 80
United Kingdom	14.25	7.00	12.50	14.00	14.00	17.00	17.00	17.00	Nov 15, 79
Belgium	9.00	9.00	6.00	9.00	9.00	10.50	14.00	13.00	Jun 25, 80
France	10.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	Aug 31, 77
Germany	3.50	3.00	3.00	4.00	5.00	6.00	7.00	7.50	May 2, 80
Italy	15.00	11.50	10.50	10.50	10.50	15.00	15.00	15.00	Dec 6, 79
Netherlands	6.00	4.50	6.50	7.00	8.00	9.50	9.50	9.50	Jun 23, 80
Austria	4.00	5.50	4.50	3.75	3.75	3.75	6.75	6.75	Mar 21, 80
Denmark	10.00	9.00	8.00	9.00	11.00	11.00	13.00	13.00	Feb 18, 80
Finland	9.25	8.25	7.25	7.25	7.25	8.50	9.25	9.25	Feb 1, 80
Ireland	14.75	6.75	11.85	13.70	13.70	16.40	16.85	16.85	Mar 21, 80
Norway	6.00	6.00	7.00	7.00	7.00	9.00	9.00	9.00	Nov 30, 79
Spain	7.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Jul 26, 77
Sweden	8.00	8.00	6.50	6.50	8.00	9.00	10.00	10.00	Jan 18, 80
Switzerland	2.00	1.50	1.00	1.00	1.00	2.00	3.00	3.00	Feb 28, 80
Argentina	47.00	165.27	108.19	94.49	107.04	89.90	74.98	72.69	May 26, 80
Brazil	28.00	28.00	33.00	33.00	33.00	33.00	33.00	33.00	Nov, 78
Korea	13.00	14.00	14.50	14.50	14.50	14.50	20.50	20.50	Jan 12, 80
New Zealand	8.50	10.00	11.00	13.00	13.00	14.00	14.00	14.00	Dec 20, 79
Philippines	6.00	6.00	4.00	4.00	4.00	11.00	11.00	11.00	Dec 1, 79
Singapore	4.00	3.50	4.50	5.00	5.75	6.75	8.50	8.50	Jun 20, 80
South Africa	9.00	9.00	8.50	7.50	7.00	7.00	7.00	7.00	Aug 13, 79
Venezuela	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	Oct 14, 70

[a]: applicable to large banks; 13% for other banks

Day-to-day money rates

monthly averages

	1976	1977	1978	1979			1980				
	Dec	Dec	Dec	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
United States	4.65	6.55	9.91	13.07	13.64	13.74	13.80	13.89	16.66	18.58	11.82
Canada	8.66	6.84	9.44	12.08	12.18	13.83	13.14	12.74	12.13	15.58	13.68
Japan	7.11	5.01	4.57	6.74	7.61	8.02	8.12	8.76	10.73	12.21	12.56
Australia	7.17	9.96	8.40	8.50	7.86	7.84	7.95	8.22	9.26	8.99	10.74
United Kingdom	14.56	4.81	10.00	11.50	11.75	14.87	14.25	16.12	15.00	16.06	15.90
Belgium	7.51	7.48	6.73	11.49	10.01	10.65	11.72	10.18	12.64	14.94	13.78
France	10.44	9.30	6.67	11.47	11.95	12.17	11.99	12.17	12.96	12.40	12.61
Germany	5.03	3.24	3.61	6.62	7.85	9.15	8.25	8.12	8.65	9.06	9.80
Italy	16.75	11.37	11.00	12.37	12.37	16.00	16.50	16.60	16.80	16.62	16.75
Netherlands	6.89	5.27	10.00	9.41	11.07	15.67	11.42	11.01	9.35	10.46	10.80
Austria	n.a.	9.25	5.37	6.62	6.75	8.50	8.75	9.00	10.25	9.87	10.50
Finland	14.53	22.99	9.29	9.13	12.87	13.53	12.70	11.14	11.97	12.36	12.49
Ireland	14.81	8.00	12.12	16.75	16.75	16.86	24.00	16.88	24.00	17.62	17.38
Spain	8.03	7.22	16.75	8.14	9.84	9.61	11.18	11.96	15.25	14.76	17.81
Sweden	10.69	8.91	6.26	10.75	9.08	11.99	10.71	12.31	11.32	10.74	12.07
Switzerland	0.50	0.85	0.00	0.75	1.50	1.25	1.50	1.25	1.75	2.75	4.00
Argentina	n.a.	n.a.	n.a.	75.45	75.15	77.15	64.01	60.30	56.14	55.88	57.34
Brazil	25.92	28.44	35.64	24.00	24.00	32.28	27.12	27.48	36.24	17.88	n.a.
Hong Kong	4.81	4.87	9.67	10.25	10.37	14.19	14.50	15.75	13.87	13.62	12.37
Korea	14.00	14.40	15.00	15.00	15.00	15.00	19.20	19.20	19.20	19.20	19.20
Philippines	15.46	14.44	13.22	10.48	11.69	16.25	11.41	12.21	14.09	15.45	13.24
Singapore	3.59	3.59	4.98	6.40	6.85	10.17	10.13	9.59	9.55	10.47	11.19
South Africa	7.59	7.65	7.11	3.79	3.59	3.81	3.94	4.01	3.94	4.06	4.23
Euro-dollars	4.86	6.94	10.80	13.37	12.70	14.41	13.77	14.87	16.13	16.90	9.95

Treasury bill rates

bond-equivalent yields, at or near end of month

	1976	1977	1978	1979			1980				
	Dec	Dec	Dec	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
United States	4.41	6.33	9.42	12.37	11.68	12.39	12.96	14.92	15.85	10.29	8.05
Canada	8.14	7.17	10.46	13.61	13.62	13.66	13.50	13.55	15.24	15.15	11.58
Japan	5.68	4.15	3.39	5.17	5.17	5.68	5.68	5.68	5.68	5.68	6.82
Australia	8.73	8.35	8.35	9.02	9.02	9.31	9.33	9.52	10.77	11.12	10.83
United Kingdom	13.98	6.42	12.01	13.93	16.75	16.45	16.93	16.71	16.95	16.73	16.75
Belgium	10.00	9.25	9.25	14.00	14.30	14.40	14.40	15.00	17.50	17.00	15.50
Ireland	14.28	6.74	11.83	13.72	16.36	16.37	16.08	16.45	16.76	16.88	16.69
Italy	17.38	12.81	12.81	12.93	13.05	15.62	13.17	15.62	15.87	16.12	15.53
Netherlands	5.63	6.00	9.50	9.50	14.00	12.75	10.75	10.50	10.75	10.25	10.87
Sweden	9.75	9.21	5.84	8.70	9.74	9.74	10.79	10.79	10.78	10.78	12.89
Argentina	79.03	107.69	77.83	93.96	71.74	69.83	70.07	62.29	60.98	57.75	64.69
Brazil	38.58	38.08	41.21	31.48	27.33	27.84	24.62	23.85	25.90	27.33	n.a.
Korea	n.a.	16.88	17.01	19.53	19.53	19.53	22.01	22.01	22.01	22.01	22.01
Mexico	n.a.	n.a.	12.75	15.95	16.85	17.89	18.71	19.30	21.38	n.a.	n.a.
New Zealand	4.00	7.50	10.50	11.25	11.25	11.25	11.25	11.25	11.25	11.25	11.25
Philippines	9.78	10.04	12.08	12.68	12.64	12.63	12.56	12.33	12.31	12.31	12.31
Singapore	2.99	3.17	4.01	5.70	5.65	6.18	6.77	6.74	6.92	7.21	7.10
South Africa	7.94	8.17	7.61	3.97	3.90	4.30	4.29	4.38	4.39	4.47	4.76

Representative money-market rates

bond-equivalent yields on major short-term (mostly 3-4 month) money-market instruments, other than Treasury bills, at or near end of month

	1976	1977	1978	1979			1980				
	Dec	Dec	Dec	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
United States	4.75	6.84	10.57	14.72	12.90	13.70	13.49	15.45	18.44	13.70	7.90
Canada	8.62	7.25	10.62	14.62	13.65	14.15	13.80	13.75	16.00	15.40	11.75
Japan	6.75	5.89	4.64	6.97	8.14	8.01	8.02	9.86	12.68	12.12	12.53
Australia	9.75	9.75	9.10	10.65	10.50	10.30	10.30	10.40	11.75	14.00	13.50
United Kingdom	14.38	6.50	12.50	14.75	16.81	17.00	17.75	18.31	18.12	17.12	17.00
Belgium	10.50	9.50	9.25	14.10	14.35	14.45	14.50	15.00	17.50	17.00	15.75
France	10.00	9.19	6.44	12.50	12.37	12.62	12.19	13.62	13.69	12.56	12.37
Germany	4.80	3.60	3.70	9.75	9.50	8.70	8.85	9.50	9.80	9.97	10.20
Ireland	14.69	6.75	13.00	17.50	17.75	18.12	18.00	18.37	19.12	18.75	17.88
Italy	16.63	11.75	11.37	12.75	13.62	17.12	17.75	17.62	17.87	16.50	17.12
Netherlands	5.88	6.25	10.50	10.75	14.75	13.00	11.37	12.87	11.25	10.37	11.25
Spain	11.36	12.06	22.80	11.60	12.80	13.20	13.40	13.40	15.50	17.50	18.70
Switzerland	1.84	2.02	0.50	3.62	4.50	6.12	6.00	5.25	7.37	6.37	5.62
Hong Kong	5.50	5.73	11.82	12.75	13.25	14.37	15.37	15.50	15.87	14.75	12.12
Korea	16.99	16.88	17.01	19.53	19.53	19.53	22.01	22.01	22.01	22.01	22.01
New Zealand	10.37	11.87	12.00	16.00	16.25	16.00	16.20	15.75	16.00	15.25	14.25
Philippines	15.47	11.96	11.48	10.01	10.13	10.41	10.33	9.99	11.49	11.79	11.06
Singapore	3.75	4.81	7.38	8.25	8.25	10.12	10.12	10.25	11.50	11.31	10.75
South Africa	9.73	9.00	7.85	4.30	4.12	4.72	4.61	4.93	5.03	5.55	5.34

Commercial bank deposit rates

at or near end of month

	1976	1977	1978	1979			1980				
	Dec	Dec	Dec	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
United States	4.70	6.80	10.90	14.50	13.20	13.55	13.40	15.55	18.50	14.50	8.75
Canada	8.00	7.25	10.45	14.50	13.40	14.05	13.70	13.75	15.50	15.35	11.50
Japan	4.50	3.25	2.50	4.00	4.00	4.00	4.00	4.00	5.00	6.00	6.00
Australia	9.75	9.50	8.50	10.00	10.15	10.25	10.40	10.50	12.35	13.00	13.15
United Kingdom	14.13	6.37	12.25	14.62	16.75	16.81	17.50	17.75	18.12	17.16	17.00
Belgium	10.00	9.50	9.87	14.37	14.63	14.50	14.50	15.12	17.50	15.00	15.75
France	9.50	9.00	6.50	12.50	12.75	12.50	12.25	12.75	12.50	12.50	12.25
Germany	4.20	3.40	3.50	8.25	8.25	7.75	8.00	8.50	9.25	9.25	9.25
Italy	17.00	17.00	12.50	13.02	12.50	13.25	13.25	13.25	13.20	13.25	13.25
Netherlands	6.13	7.00	11.62	11.00	15.00	13.50	12.00	13.00	11.75	10.75	11.50
Austria	n.a.	9.00	6.75	8.75	8.50	8.50	8.75	8.75	9.75	9.87	10.00
Denmark	9.00	8.00	7.00	10.00	10.00	10.00	10.00	12.00	12.00	12.00	12.00
Finland	5.75	4.25	3.25	3.25	4.25	4.25	4.25	5.00	5.00	5.00	5.00
Ireland	n.a.	6.87	12.75	17.25	17.50	17.87	18.00	18.00	19.12	18.75	17.62
Norway	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Spain	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Sweden	7.75	7.75	6.25	7.75	8.75	8.75	9.75	9.75	9.75	9.75	9.75
Switzerland	1.50	1.12	0.12	2.25	3.75	4.75	4.75	4.75	6.75	5.50	4.75
Argentina	n.a.	n.a.	81.24	89.88	77.40	72.36	71.28	65.76	59.40	54.60	53.52
Brazil	45.60	39.60	46.80	42.12	43.20	45.00	45.48	43.68	44.76	44.76	n.a.
Hong Kong	3.25	1.75	4.50	9.25	9.25	9.25	9.25	9.25	10.50	10.50	9.00
Korea	15.00	13.20	15.00	15.00	15.00	15.00	19.20	19.20	19.20	19.20	19.20
Mexico	8.50	11.00	12.00	15.13	16.80	16.75	17.35	18.15	20.71	n.a.	n.a.
New Zealand	10.25	11.00	12.00	15.50	15.75	15.90	15.80	14.25	14.00	14.00	13.75
Philippines	8.50	8.50	8.50	8.50	8.50	10.50	10.50	10.50	10.50	10.50	10.50
Singapore	3.75	5.31	7.31	8.31	8.12	10.31	10.38	10.75	11.81	10.75	10.19
South Africa	9.75	8.70	7.30	4.10	4.00	4.82	4.40	4.75	4.68	5.35	5.22
Venezuela	8.00	7.00	7.25	13.50	15.00	15.00	15.00	15.00	17.00	17.00	13.00

Commercial bank lending rates to prime borrowers

at or near end of month

	1976	1977	1978	1979			1980				
	Dec	Dec	Dec	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
United States	6.00	7.75	11.75	15.00	15.50	15.25	15.25	16.75	19.50	18.50	14.00
Canada	9.25	8.25	11.50	14.75	15.00	15.00	15.00	15.00	16.50	16.50	13.75
Japan	7.42	5.47	4.50	5.86	6.16	6.51	6.71	6.95	7.70	8.60	9.40
Australia	11.50	11.50	11.00	10.75	10.75	10.75	11.25	11.25	12.25	12.50	12.50
United Kingdom	15.50	8.00	13.50	15.00	18.00	18.00	18.00	18.00	19.00	18.50	18.50
Belgium	11.75	10.00	10.00	14.00	14.75	15.25	15.50	16.50	18.75	18.75	18.75
France	11.65	11.35	10.95	12.65	13.65	13.65	13.65	14.65	14.65	14.15	14.15
Germany	6.50	6.00	5.50	8.75	9.75	9.75	9.75	9.75	10.50	10.50	11.50
Italy	21.00	16.00	15.00	16.50	16.50	19.50	19.50	19.50	19.50	19.50	19.50
Netherlands	8.50	7.00	12.00	11.37	15.00	15.00	13.25	14.25	13.25	12.00	12.75
Austria	n.a.	9.75	8.75	8.50	8.50	8.50	9.50	9.50	9.50	11.00	11.00
Denmark	14.00	12.50	10.00	13.25	13.75	13.75	13.75	15.75	15.75	15.75	15.75
Finland	9.71	8.85	7.87	7.85	8.98	9.06	9.08	9.77	9.82	n.a.	n.a.
Ireland	14.00	8.25	13.75	16.00	16.00	16.00	16.00	16.00	16.00	18.50	18.50
Norway	8.33	8.33	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
Spain	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
Sweden	10.25	10.25	8.50	9.75	10.75	10.75	11.75	11.75	11.75	11.75	11.75
Switzerland	7.50	6.75	5.00	5.00	5.00	5.00	5.00	5.50	5.50	5.75	5.75
Argentina	92.40	163.20	87.84	90.12	78.00	74.64	78.90	71.01	64.11	57.70	59.67
Brazil	30.00	52.05	61.70	57.00	57.00	57.00	57.00	57.00	57.00	57.00	n.a.
Hong Kong	6.00	4.75	8.75	14.50	14.50	14.50	14.50	14.50	16.00	16.00	14.50
Korea	17.00	15.00	18.50	18.50	18.50	18.50	24.50	24.50	24.50	24.50	24.50
Mexico	15.50	17.00	17.50	19.00	19.00	19.00	19.00	19.00	21.39	n.a.	n.a.
New Zealand	7.50	8.50	9.75	10.75	12.00	11.75	12.00	12.75	12.75	12.75	12.75
Philippines	14.00	14.00	14.00	14.00	14.00	16.00	16.00	16.00	16.00	16.00	16.00
Singapore	6.78	7.02	7.65	9.10	9.18	9.50	10.25	10.55	11.28	12.10	11.98
South Africa	12.50	12.50	11.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50
Venezuela	9.50	9.50	10.25	11.50	13.00	13.00	13.00	13.00	14.00	17.00	12.00

Domestic government bond yields

long-term issues, at or near end of month

	1976	1977	1978	1979							
	Dec	Dec	Dec	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
United States	7.20	7.97	9.00	10.50	10.09	10.20	11.11	12.60	12.50	10.38	10.24
Canada	8.47	8.77	9.68	11.16	10.94	11.32	12.13	12.91	13.20	12.01	11.39
Japan	8.61	6.40	6.40	8.46	8.78	8.63	8.56	9.17	9.76	9.65	8.75
Australia	10.50	9.50	8.90	10.30	10.40	10.45	10.65	11.50	11.75	11.85	11.85
United Kingdom	14.31	10.53	12.75	12.72	13.98	13.83	13.30	13.89	13.96	13.44	13.30
Belgium	9.30	8.76	8.80	10.58	11.00	11.13	11.42	11.93	12.45	12.02	12.26
France	11.04	11.07	9.94	11.60	12.09	12.59	12.52	14.11	14.44	13.94	13.49
Germany	7.28	5.52	6.65	8.07	7.81	7.91	8.13	8.86	9.72	8.93	8.20
Italy	13.92	10.82	10.89	11.26	11.31	11.28	11.39	11.56	11.63	11.63	11.64
Netherlands	8.40	8.11	8.48	8.83	9.18	9.29	9.41	10.37	11.45	10.59	9.97
Austria	8.55	9.00	7.91	8.26	8.27	8.20	8.20	8.51	8.93	9.50	9.52
Denmark	14.57	16.83	17.27	17.80	18.04	18.28	18.55	19.71	20.37	20.57	20.27
Finland	10.92	10.25	9.19	9.34	9.49	9.58	9.94	10.13	10.38	10.59	10.46
Ireland	15.49	11.30	13.44	16.64	16.64	16.64	15.95	15.95	15.95	16.20	16.19
Norway	7.25	8.37	8.19	8.28	10.19	10.04	10.10	10.15	10.20	10.26	10.31
Sweden	9.61	9.84	10.09	11.01	11.04	11.22	n.a.	n.a.	n.a.	n.a.	n.a.
Switzerland	4.43	3.75	3.03	3.63	4.04	4.20	4.48	5.03	5.09	4.96	4.82
Argentina	62.16	179.16	110.64	153.24	69.96	47.28	42.00	44.40	53.28	59.16	56.16
New Zealand	8.70	10.00	10.02	13.00	12.96	12.98	13.44	13.45	13.57	13.47	13.75
Philippines	13.41	13.40	13.40	13.30	13.30	13.20	13.40	13.40	13.40	13.40	13.40
South Africa	11.00	10.75	9.85	9.29	9.34	9.44	9.38	9.33	9.32	9.56	9.69
Venezuela	7.04	7.24	7.24	7.35	7.33	7.29	7.38	7.25	7.33	7.40	7.45

Domestic corporate bond yields

long-term issues, at or near end of month

	1976	1977	1978	1979			1980				
	Dec	Dec	Dec	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
United States	7.35	8.30	9.25	11.00	10.50	10.75	11.88	12.88	13.75	10.75	11.20
Canada	9.58	9.71	10.34	11.97	11.72	12.07	12.80	13.35	13.90	12.84	12.29
Japan	8.81	6.68	6.94	8.11	8.34	8.34	8.12	8.12	8.75	9.50	8.68
Australia	12.00	11.00	10.25	11.40	11.65	11.65	11.90	12.60	12.75	13.10	13.25
United Kingdom	15.96	11.88	13.53	13.40	14.89	14.96	14.25	14.55	14.99	14.86	14.39
Belgium	11.88	9.85	9.58	11.34	11.70	11.93	11.82	12.22	n.a.	n.a.	n.a.
France	11.39	12.09	10.27	11.84	12.33	12.92	12.91	14.57	14.80	14.37	14.39
Germany	7.47	5.92	6.80	8.00	8.40	8.20	8.10	8.50	9.60	10.00	n.a.
Italy	16.90	10.71	10.12	9.99	9.90	10.22	10.22	10.56	11.12	11.85	12.14
Netherlands	8.22	7.90	8.62	9.10	9.50	9.95	9.78	10.54	12.05	10.85	10.43
Norway	7.65	8.59	8.37	n.a.	10.94	10.53	10.71	10.75	10.80	10.85	10.91
Spain	10.86	11.58	12.17	11.54	11.40	11.77	11.34	11.18	11.19	11.45	n.a.
Sweden	9.82	9.83	10.03	9.75	9.81	10.21	10.43	10.78	10.85	11.00	11.07
Switzerland	5.50	4.96	4.85	5.28	5.44	5.53	5.61	5.63	6.06	5.77	5.56
Korea	21.70	19.60	24.00	29.20	31.00	32.50	32.50	31.00	31.00	31.00	31.00
Mexico	15.56	17.56	20.37	21.63	22.43	21.99	23.00	23.55	24.49	26.26	24.70
Venezuela	10.37	10.39	12.43	13.59	14.06	14.55	13.63	13.87	14.86	15.94	14.40

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World Financial Markets

Morgan Guaranty Trust Company of New York

July, 1980

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Foreign exchange market developments

The dollar has continued to hold up quite well in foreign exchange markets in recent weeks in the wake of the complete dismantling of the voluntary credit restraint program of March 1980 and also the elimination of the 2% supplementary reserve requirement on large time deposits that had been imposed as part of the November 1978 dollar support package. Looking back at the past four months, the sharp decline in U.S. interest rates has caused the dollar to give up its exceptional strength of last fall and winter, but the situation did not develop into a foreign exchange crisis requiring massive central bank intervention to support the dollar. Now that the major decline in U.S. interest rates seems to have largely run its course, it would appear that the prospects for maintaining dollar stability have been enhanced.

Indeed, the dollar has already rebounded against the yen in recent weeks, appreciating by 5% since the middle of last month after having depreciated by more than 20% against the yen between early April and mid-June (see Table 1). It has weakened only marginally against the European currencies in the last month and a half, falling by less than 1% against the German mark and most other European currencies, after having depreciated sharply against these currencies from early April to mid-June.

Overall, the trade-weighted value of the dollar as of July 29, 1980 has appreciated by about one percent since mid-June (see chart). This contrasts with a 9% drop in the value of the dollar on an effective basis between early April and mid-June.

Official intervention to stabilize the dollar has been fairly moderate over the past two months, although there were a few occasions when heavier central bank intervention was required. The Bundesbank and the Federal Reserve, for example, had to step up the pace of intervention earlier this month when the dollar fell to the DM1.73 level shortly after the Federal Reserve's credit control program was eliminated. Germany's official reserves have increased by more than $2 billion since the end of May, but a sizable part of this increase — perhaps $500 million or more — was unrelated to exchange market intervention. Japan's official reserves climbed by $1.2 billion in June, and continued to rise earlier this month, when the yen was fluctuating between Y215-220/$1. Since the yen weakened beyond the Y220/$1

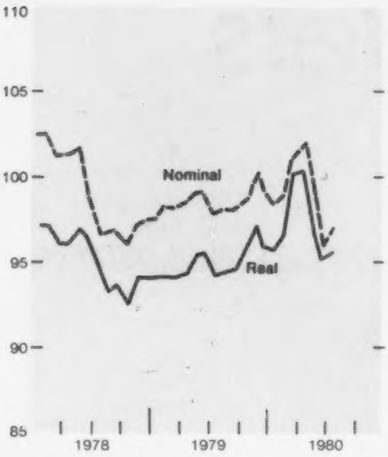
Table 1

Dollar exchange rates

in foreign currency units per dollar, except Canadian dollar and British pound that are in U.S. cents per foreign currency unit

	April 7 1980	June 16 1980	July 29 1980
Canadian dollar	84.1¢	87.1¢	85.7¢
Japanese yen	260.8	215.8	226.2
British pound	213.4¢	233.9¢	237.4
German mark	1.97	1.77	1.75
French franc	4.54	4.11	4.06
Swiss franc	1.87	1.63	1.61
Dutch guilder	2.14	1.93	1.91
Italian lira	910.8	833.0	829.8

Effective dollar exchange rates
monthly averages
index, March 1973=100



Latest plotting July 29th

Table 2

Three-month Euro-currency deposit rates
in percent per annum

	April 7 1980	*June 16 1980*	*July 29 1980*
U.S. dollar	19.69	8.94	9.44
Canadian dollar	15.62	11.87	10.62
Japanese yen	15.25	11.50	13.38
British pound	18.44	16.62	15.02
German mark	10.19	9.31	8.75
Swiss franc	6.87	5.50	5.00
French franc	14.00	12.25	11.56

level, intervention by the Bank of Japan to support the yen has been moderate, and the authorities seem to be prepared to let it fluctuate within a fairly broad trading range.

Interest rate developments have continued to dominate the foreign exchange markets. From early April to the end of May of this year, there was a drop of nearly ten percentage points in U.S. and Euro-dollar interest rates, in some cases reversing short-term interest rate differentials which had favored the dollar, and in other instances narrowing the differentials. Over the last two months, however, declines in U.S. money market rates have been much more moderate, and were roughly in line with declines in short-term interest rates in other major industrial countries. Three-month Euro-dollar deposit rates now are slightly above three-month Euro-DM rates and about 400 basis points below three-month Euro-yen deposit rates (see Table 2). With the United States still facing an underlying inflation rate in the vicinity of 10%, a number of short- and medium-term dollar instruments are now carrying negative rates of return in real terms of between 1% and 2%. In comparison, interest rates on short- and medium-term instruments in Germany and Japan are generally yielding positive returns after adjusting for expected inflation rates.

Looking ahead to the remainder of this year and early 1981, there is reason to expect interest rate developments to be more favorable to the dollar than in the recent past. Some further declines in U.S. money market rates cannot entirely be ruled out in the very near term given the present weakness of the U.S. economy. However, based on recent Federal Reserve statements, any easing of U.S. money market rates is likely to be moderate, and U.S. interest rates could increase later this year. After having permitted the Fed funds rate to fluctuate over a wide range earlier this year, the Federal Reserve has adopted a much more cautious stance lately. During most of June and July, for example, the Fed funds rate fluctuated in a fairly narrow range of 8½% to 9½%. On July 25, the Fed lowered the discount rate by one percentage point to 10%, but this move was mainly a catch-up to bring the rate more in line with money market rates. The Fed's scope for reducing money-market rates further appears limited now that M-1B is just above the lower limit of its range (see chart), while M2 is nearing the upper end of its target range.

In his recent testimony before the Senate Banking Committee, Federal Reserve Chairman Volcker indicated that the Fed was not prepared to bring M-1B to the midpoint of its target range by year's end if it meant pushing M2 above the upper limit of its target range. Mr. Volcker also announced that the Federal Reserve would set growth rate targets for money and credit next year that are lower than this year's target ranges as a means of fighting inflation. With Mr. Volcker strongly supporting Treasury Secretary Miller in opposing a 1981 tax cut at this time, U.S. monetary policy is likely to be more restrictive if a tax cut is enacted.

U.S. monetary restraint is particularly important now, in view of the prospects for large U.S. government budget deficits in the current fiscal year and in the next fiscal year, even without a tax cut. The latest government projections call for a federal budget deficit in FY 1980 (ending September 30, 1980) of $61 billion, compared with a previous estimate of a $36.5 billion deficit, and a deficit of $30 billion in FY1981, compared with the former estimate of a $16.5 billion surplus. These changes are partly a consequence of revisions in the govern-

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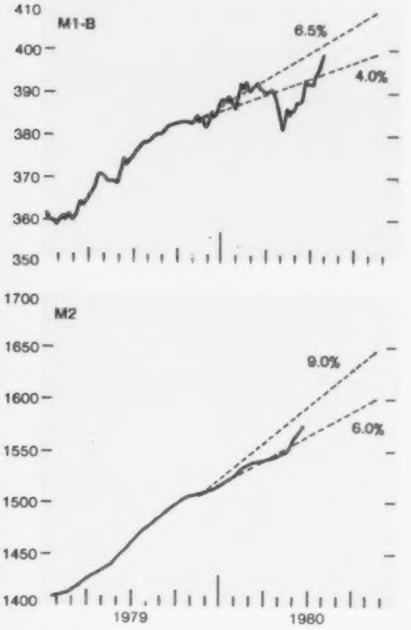
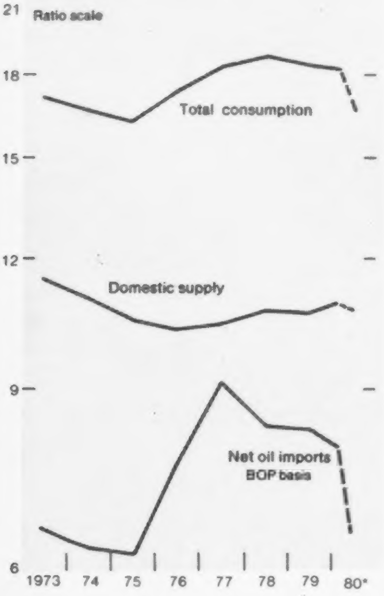
U.S. money supply and target ranges
in billions of dollars



U.S. oil consumption, supply and net imports
millions of barrels per day



*Data through June

ment's economic outlook, with the administration now conceding that the U.S. recession is likely to be deeper and more prolonged than it had envisaged earlier. They also reflect faster increases in defense spending than had been projected earlier. While they do not incorporate a tax cut for either FY1980 or FY1981, bipartisan support for a $25-$30 billion tax cut for FY1981 is expected to build during the fall campaign. A tax cut of that magnitude would only partly offset the more than $45 billion in tax increases next year arising from higher social security taxes, windfall oil profits, and personal income tax bracket creep induced by inflation. However, it would also bring the budget deficit in the next fiscal year close to or even above this year's deficit, placing pressure on U.S. interest rates to rise.

There is still little evidence of an easing of official interest rates abroad, except for the 1% reduction in the U.K.'s minimum lending rate earlier this month (see next story).The Bundesbank has decided to let its rate for credits against securities to decline from 9.8% to 9.2% in order to discourage borrowings from the Lombard facility, the rate on which presently stands at 9½%. However, the German authorities refrained from lowering the discount rate, and Bundesbank President Poehl has indicated that the easing of money market rates does not signal a significant turnaround in German monetary policy. The Japanese authorities have also resisted a cut in the discount rate, even though inflation appears to have peaked and the economy has shown signs of slowing. The Bank of Japan has announced that its "window guidance" restrictions on bank credit will continue in the current quarter, with the expansion of credit outstanding for the large city banks as of end-September 1980 limited to only 5.9% over the level a year earlier — the smallest increase in the post-war period.

Nevertheless, while foreign monetary authorities are reluctant to reduce interest rates and are prepared to err on the side of caution, the weakening in economic activity abroad points to a lowering of foreign interest rates later this year and in early 1981. This should contribute to a narrowing and possibly even an elimination of the adverse interest differentials currently facing the dollar.

Apart from interest rate developments, the dollar stands to benefit from a favorable trend in the U.S. current account balance. The recent U.S. monthly trade figures have displayed considerable volatility, with the seasonally adjusted trade deficit on a customs basis (FAS/CIF) widening from $1.9 billion in April to nearly $4 billion in May and then declining to $2.3 billion in June. The setback in May was partly due to a decline in exports of silver and gold (related to the suspension of IMF gold sales in April). Taken together, the three-month figures point to a substantial narrowing of the U.S. trade deficit, with the April-June deficit on an FAS/CIF customs basis running at a $32 billion annual rate, compared with a $54 billion annual rate deficit in the first quarter of this year. Given the trend toward large surpluses in the net invisibles account, the U.S. current account in April-June was probably in surplus at about a $5 billion annual rate.

The U.S. current account balance is expected to remain in surplus through the second half of 1980 and the first half of 1981, mainly in view of the continued weakness of the U.S. economy, while estimates of the current account deficits for Germany and Japan this year center around $15 billion and $17 billion, respectively. The volume of U.S. non-oil imports is estimated to have

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Table 3

U.S. oil demand and supply in 1980

	Jan-Mar	Apr-Jun	Jan-Jun	Jul-Dec	Year
millions of barrels per day					
Oil consumption	18.2	16.6	17.4	17.0	17.2
Exports	.5	.5	.5	.5	.5
Total demand	18.7	17.1	17.9	17.5	17.7
Domestic supply	11.0	10.8	10.9	10.8	10.8
Changes in stocks	.1	.2	.2	.0	.1
Gross imports — DOE basis	7.8	6.6	7.2	6.7	7.0
Gross imports — BOP basis	8.42	7.11	7.76	7.04	7.40
Net imports — BOP basis	7.90	6.61	7.26	6.54	6.90
% changes from previous year					
Consumption	—10.3	—5.7	—8.2	—5.6	—6.7
Net imports — BOP basis	—9.2	—19.1	—13.9	—19.6	—16.7

Table 4

Trends in the volume of net oil imports of major industrial countries

crude and products imports less exports
percent changes

	1979 over 1973	1980 year to date from 12 months ago
United States	25.5	—13.9[a]
Japan	1.3	—6.2[b]
France	—7.5	—10.8[c]
Germany	—1.1	—3.0[b]
Italy	—5.0	2.7[d]
United Kingdom	—81.4	—48.0[c]

[a] January-June
[b] January-May
[c] January-March
[d] January-April

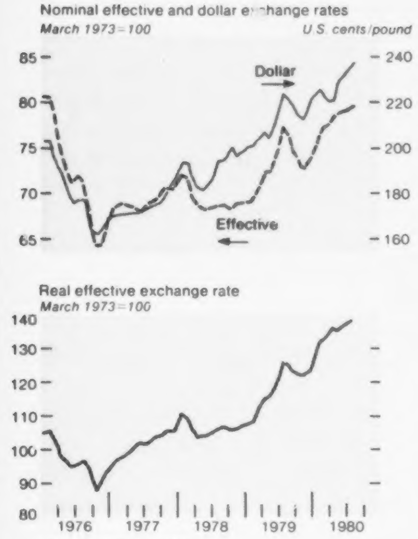
declined by about 8% in the second quarter of this year from the first quarter — or by roughly four times the second quarter drop in real GNP. Moreover, non-oil import volume is expected to remain weak for some time to come.

After rising by over 25% between 1973 and 1979, the volume of net U.S. oil imports began to decline steadily this year. It was down by 9% in the first quarter of this year relative to the same period a year ago, and by almost 20% in the twelve months to the second quarter (see Table 3). This resulted in an overall decrease of 14% for the first half of 1980, to 7.3 million bpd on a balance-of-payments basis, one of the largest relative declines among major oil-importing industrial countries (see Table 4). The trend is likely to continue during the remainder of 1980, so that 1980 net U.S. oil imports may be on the order of 6.9 million bpd, almost 17% less than in 1979.

This significant improvement reflects, of course, the contraction of U.S. oil consumption, which fell by more than 8% in the first half of 1980 from 1979. The decline stems not only from the slowing of the U.S. economy, but also from an increase in the oil prices paid by consumers because of higher international prices and the decontrol of domestic crude oil. By May of this year, for example, the retail price of gasoline in the United States was more than 80% above the December-1978 level, representing a relative increase of 50%. This rate of increase is one of the highest among the industrial countries, partly because the United States is starting from a relatively lower level, and also because a large part of the other industrial countries' gasoline prices consists of excise taxes, which have not been increased in line with world oil prices.

The decline in the volume of oil imports of the United States and of other industrial countries, as well as Saudi Arabia's willingness to keep production at 9.5 million bpd, are having a moderating influence on world oil prices. This in turn should benefit all oil-importing countries, but will have the largest impact on the current account of the United States — the world's largest oil importer. So far, only about half of the 13 OPEC members have implemented the new oil price increases implicit in the June OPEC agreement, while spot market prices for some of the most expensive OPEC crudes have recently fallen below official levels. At present the weighted average OPEC price is just over $32 per barrel and may be up to $34 by year-end, assuming that Saudi Arabia raises its price from the current $28 per barrel to $32 sometime this fall. This would bring the effective OPEC price for the whole of 1980 to $32 per barrel, up more than 60% nominally and 42% in real terms from 1979. It would also imply an annual rate of increase in real terms in the second half of this year

British pound



Latest plotting July 29th

of 5% versus more than 10% in the first half. Interestingly, even this smaller rate of increase during the next six months still would be substantially above the rate of economic growth of industrial countries (which is likely to be negative) to which OPEC intends to tie the future rate of increase in oil prices in real terms.

While the dollar is likely to benefit both from future interest rate developments and a favorable current account trend, there is still considerable uncertainty about how rapidly U.S. inflation will be reduced. Producer price inflation and consumer price inflation decelerated to a 9½% rate and an 11½% rate, respectively, in the second quarter of this year from 17% rates in the first quarter. These rates are expected to fall further in the second half of this year as a consequence of declines in mortgage rates and a slowing of fuel price increases, although the outlook for food prices has deteriorated recently. From a longer-term perspective, however, there is considerable skepticism about whether much progress can be made in reducing the underlying rate of inflation, in view of the deteriorating trend of U.S. productivity and signs that wage increases in 1980 may exceed those last year. Nevertheless, with the dollar now standing at a level of about 95 (index, March 1973 = 100) on a real effective basis — and the United States' expected international price differential negligible, the implicit inflation discount on the dollar may be excessive from a longer run perspective.

Prospects for sterling

The British pound has shown little response to the long-awaited cut in the Bank of England's minimum lending rate (MLR) on July 3. In late July, sterling reached a five-year high against the dollar, trading within a range of $2.37-$2.40, up from $2.35-$2.365 immediately preceding the reduction. Less than a month earlier, sterling had fallen nearly 5 cents after a statement by Prime Minister Thatcher interpreted as indicating a cut in MLR was near; but in the interim continental European rates have started to fall.

Since the Conservative government took office in early May, 1979, the exchange rate has risen some 15½% against the dollar and 9½% on a trade-weighted basis (see chart). From its October 1976 low the rate has appreciated by 54% and 28%, respectvely. Adjusted for inflation, sterling is now 58% above its October 1976 level and nearly 40% above its 1973-77 average.

The short and long term prospects for sterling appear to be divergent. In the near term, the prospects for Britain's current and capital accounts point to a continued firm exchange rate. Indeed, some further appreciation cannot be ruled out. Over the longer term, prospects appear not to be so bright as the upward pull of short-term forces will diminish and the effect of eroded industrial competitiveness will tend to weaken the exchange rate.

Sources of sterling strength

The fundamental basis for sterling's strong 1977-80 performance is Britain's large reserves, and rapidly-increasing production, of oil. The latest U.K. Department of Energy estimates place remaining oil reserves at between 15 and 31 billion barrels, compared with total domestic U.K. consumption of about 700 million barrels during 1979. Thus even the more conservative estimate implies reserves some 22 times current annual domestic consumption, about half in fields already producing or under development. Britain has the capacity to remain totally self-sufficient through

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Table 5

*Britain's production of petroleum**

millions of barrels per day

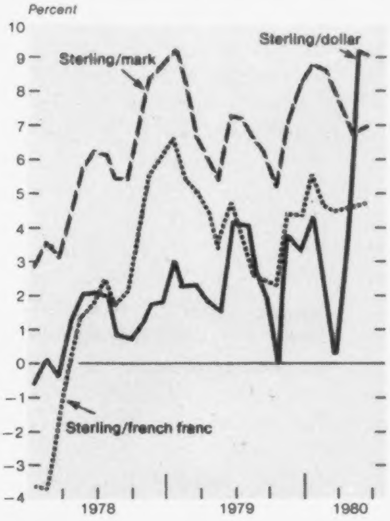
1975	.03
1976	.25
1977	.77
1978	1.09
1979	1.58
1980	1.62-1.72
1981	1.72-2.13
1982	1.82-2.43
1983	1.92-2.64
1984	1.92-2.74

*1980-84 U.K. Department of Energy projections

Short term interest rate differentials

representative 3-month rates

U.K. rates less foreign rates



the 1980s and possibly beyond. Further increases in the price of oil would have the effect of boosting total output as more oil is worth recovering from existing fields and smaller fields become commercial, as well as further enhancing the value of existing reserves.

Britain's production of oil, negligible up to 1975, has increased to some 1.6 million bpd in 1979 (see Table 5). The recently released U.K. Department of Energy annual report has projected 1980 production of 1.6-1.7 million bpd. The government recently announced its intentions to hold production below potential to prolong Britain's period of self-sufficiency. The lower end of the range of production levels included in the report calls for output during the next several years only slightly above expected consumption, and about 20% above the level of 1979 output. However, given that half of Britain's premium crude is exported, with corresponding lower grade crude imports, the oil trade balance should be significantly positive.

The rapid increase in production has prevented the sharp deterioration in oil trade balance experienced by other major industrial countries in 1979, and even more in 1980, as a result of OPEC price increases. Britain's net oil imports (BOP basis) declined from $3.9 billion in 1978 to $1.7 billion in 1979, and a surplus of $500 million at an annual rate was recorded in the first half of 1980. This is in contrast to expected 1980 net oil imports by the United States, Japan, and Germany of $82 billion, $64 billion, and $36 billion, respectively. The value of U.K. oil output in 1980 is expected to be over $21 billion.

On the price side, the long term increase in the relative price of oil during the 1970s, especially in 1979-80 following the Iranian production cutback and 1979's strong worldwide economic performance, has been a major plus factor for sterling. In the immediate future this influence will tend to become less favorable, as the increase in the relative price of oil over the next year, if any, is likely to be much more modest than during the past year and a half.

Partly offsetting the North Sea oil benefit to the trade account has been the rapid build-up in the earnings of foreign oil companies operating in Britain. These increased from less than $1.1 billion in 1978 to $4 billion in 1979 and ran at a $5½ billion annual rate during the first quarter of 1980. Oil company earnings will probably rise further during 1980 and 1981. But government taxation of these revenues will increase rapidly in following years as tax allowances for capital costs are used up. Moreover, it is important to note that oil companies have for the most part retained the money in Britain. In part this reflects the need for funds to finance investment requirements and future tax liabilities. But it also reflects the attractiveness of high interest rates.

North Sea oil prospects have been supplemented by high interest rates as a strong lure to capital inflows. British short-term interest rates have been well above those of other industrial countries almost continuously since early 1978 (see chart). This has been the result of government emphasis on money supply restraint as the main measure to slow Britain's inflation. Slowing money supply growth has been a prime goal of the Conservative government since it took office in early May, 1979. As a consequence, the mid-June 1979 budget was accompanied by an increase in MLR to 14% from 12%. When money supply growth still failed to slow, MLR was raised further to 17% in November, 1979. It remained at that level until the cut to 16% on July 3.

The resulting capital inflows during 1979 and first quarter 1980 were

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principally short term. Net foreign purchases of government long-term debt during 1979 totalled $2.6 billion, but these virtually ceased during the first quarter of 1980, although more recently there have been reports of renewed foreign purchases. The larger flows have been into bank deposits and money market assets. These totalled $6.6 billion in 1979 and another $1 billion in the first quarter of 1980, with further substantial increases during the second quarter. In addition to the incompletely recorded second quarter inflows, throughout the last few years the "balancing item" (errors and omissions) in the accounts has reflected strong unrecorded inflows, mainly "leads and lags".

Most of these inflows have been private, in part reflecting the government's policy of discouraging the use of sterling as a reserve currency. Official purchases of government securities totalled about $525 million during 1979, and holdings dropped slightly during the first quarter, although they may have picked up more recently. Official bank deposits and money market assets increased by some $1.1 billion in 1979 and another $1.1 billion in first quarter 1980.

Part of these inflows, private as well as official, were accounted for by oil exporters' investments in sterling-denominated assets. After a nominal increase in 1978, these investments increased some $2.2 billion in 1979 and another $1.8 billion in the first quarter of 1980.

These capital inflows have been enough to finance the $4.9 billion current account deficit in 1979 and the $2 billion deficit of first-half 1980; the estimated $6½ billion in outflows following the phased elimination of exchange controls completed by October, 1979; and the $3.4 billion in net loan repayments — altogether totalling some $17 billion. However, capital inflows exceeded even this amount, causing the exchange rate to strengthen despite the $5.4 billion of exchange market intervention to smooth the pound's rise, $3.7 billion in 1979, and $1.7 billion in 1980 so far.

Exchange rate policy

Since the autumn of 1977 it has been the policy of British governments to permit the exchange rate to be determined principally by market forces. One notable exception to this rule, foreign exchange controls, was phased out by the Conservative government starting in the summer of 1979 and eliminated last October. In their day-to-day operations, the authorities have not been precluded from frequent interventions to smooth exchange rate changes. But there has been no large-scale effort to peg a particular rate, and the exchange rate has been permitted to rise.

While this exchange rate policy is consistent with the government's free market orientation, it has also been an essential part of the effort to slow inflation. The chief means of reducing inflation was to have been slowing the growth of the money supply. Greater official sterling sales in the foreign exchange market would have contributed further to money supply growth, compounding the difficulties the authorities have faced in any event. The strong exchange rate has helped curb inflation in two other ways. First, it has directly reduced the sterling price of imports. It has also put pressure on import-competing and export industries to hold down wage increases and increase productivity by laying off workers and closing down marginal activities, even if this results in the bankruptcy of marginal firms. Present exchange rate policy is likely to continue in the medium term, along with the associated high interest rate policy, even if in a less pronounced form.

Table 6

United Kingdom: trade and current accounts

in billions of dollars

					1980	
	1976	*1977*	*1978*	*1979*	*Qtr I**	*Year (proj)*
Trade balance, customs basis (FOB/CIF)	—9.8	—6.4	—6.8	—12.0	—13.6	—9.0
Nonmanufactures ex fuels	—10.5	—11.2	—10.8	—13.3	—12.2	—11.5
Fuels	—8.0	—5.5	—4.7	—3.1	—2.7	—1.5
Petroleum and products	—7.9	—5.4	—4.4	—2.3	—2.9	—1.0
Manufactures	8.7	10.4	8.7	4.4	1.4	4.0
Trade balance, payments basis (FOB/FOB)	—7.1	—3.9	—2.9	—7.0	—6.5	—3.0
Net invisibles	4.9	3.5	4.3	2.1	2.8	1.5
Services	4.0	5.2	6.4	6.9	7.9	8.5
Investment income	2.3	0.4	1.6	0.3	—0.1	—1.0
Transfers	—1.4	—2.0	—3.7	—5.2	—5.0	—6.0
Current account balance	—2.2	—0.4	1.5	—4.9	—3.8	—1.5

* seasonally adjusted annual rate

Table 7

British export and import volumes

1975=100

	Non-manufactures excluding fuels	*Fuels*	*Manufactures*
Exports			
1976	107	120	109
1977	115	165	118
1978	133	209	119
1979	130	277	119
*1980**	141	284	123
Imports			
1976	108	100	109
1977	106	83	121
1978	106	80	136
1979	111	78	156
*1980**	101	70	164

* January-June

Note: Weights in total export volume: nonmanufactures excluding fuels, 10.3%; fuels, 4.3%; manufactures, 85.4%. Weights in total import volume: nonmanufactures excluding fuels, 26.7%; fuels, 18.1%; manufactures, 54.3%.

Current account developments

With official foreign exchange market intervention relatively modest, the large net capital inflows attracted by high interest rates made a current account deficit inevitable. The mechanism by which this was accomplished was mainly the boost to British real incomes from the strengthening of sterling, with loss of competitiveness so far a lesser factor. Thus, while Britain's current account performance in the last few years has been a disappointment (see Table 6), it has been the necessary result of North Sea oil induced capital inflows, and of the exchange rate and interest rate policies of the government. With the oil trade balance improving, the deterioration in non-oil merchandise trade and invisibles has been substantial (see Table 7). Finished manufactures imports increased some 56% in volume terms between 1976 and 1979 with the imports of passenger cars and other consumer goods both up 85% during the same period. In part, this reflects the continuation of a long-term trend. The increase in import market shares was even more marked in the early 1970s, when sterling was declining and home products becoming more competitive, than in 1974-79. A more educated and sophisticated industrial and consumer public explains much of the increase, and this process has been evident in most industrial countries.

The appropriate response to the rapid increase in imports of manufactures is to raise exports, but the growth of manufactures exports in volume terms has been quite sluggish. These divergent trends in import and export growth have occurred despite slower long-term economic growth in Britain than abroad, although the recessionary conditions in 1980, especially inventory liquidation, have temporarily inhibited these trends since the last quarter of 1979.

The impact on Britain's current account of the weakening of non-oil trade has been reinforced by a pronounced decline in Britain's traditional surplus on invisibles transactions. Net investment income has dropped sharply since 1978 as a result of the higher earnings of foreign oil companies operating in Britain, and has moved into deficit during the last two quarters. At the same time, Britain's net transfer payments have been rising sharply. Much of this has been the result of increased net contributions to the EEC, which rose from less than $800 million in 1977 to more than $2.4 billion in 1979. But other net government transfers increased by some $950 million and net private transfers by more than $700 million over the same period.

Prospects

The timing of the July 3 reduction in MLR caught most observers by surprise, since it preceded any evidence that money supply growth was yet firmly under control. But the severity of the recession, the sharp rise in unemployment, and expectations that private sector demand for credit will decline sharply in coming months have raised hopes of another cut in the near future. The government will probably move fairly cautiously in further reducing interest rates. They have made slowing the growth of money supply the centerpiece of their economic strategy and can ill afford to lose credibility at the start of the next, critical wage round.

There are several other reasons for caution in expecting a rapid and substantial lowering of interest rates. The government probably wants to go slow in relaxing its interest and exchange rate discipline on private industry, because of the productivity gains expected from this policy. The substantial continued public sector borrowing requirement — some 4% of GNP in the 1980/81 financial year — means that high interest rates are needed to restrain monetary growth to within the 7%-11% target range. However, this deficit could fall by 1% of GNP over the next twelve months owing to spending restraint and reduced EEC contributions. Inflation is unlikely to be out of double figures until well into 1981, if then. The Chancellor of the Exchequer's forecast of a 16½% year-on-year rate by November (against 21% in June) implies a 10% annual rate of inflation in the second half of 1980. But further reduction will be hindered by wage settlements that have averaged 20% over the last year, although they may soon decelerate. Lastly, despite the prospective rough balance in the current account of the balance of payments, up to $10 billion of further capital inflows could be needed within the next year to finance continued overseas investment by British residents and official debt repayments.

While the recession and continued North Sea exploitation may eliminate the recent current account deficit during the next few quarters, the medium term outlook is for a reversion to deficit. Improvement on the invisibles side of the account is likely to be more than offset by deterioration in merchandise trade.

Reversing the recent reduction in Britain's traditional invisibles surplus, the deficit on transfer payments will drop sharply in 1981 as about two thirds of Britain's expected $2½ billion net contribution to the EEC is rebated. The deficit on net investment income may temporarily increase as the result of higher oil company earnings and the cost of the interest payments at high rates on recent capital inflows. But this is being partially offset by the greater reduction in profitability of non-oil foreign firms in Britain than in that of British firms abroad. By 1982 oil company income tax payments to the government will begin to rise sharply, reducing their after-tax earnings. In service items such as tourism, financial services and shipping, increasing competition will probably still permit some growth in the surplus.

The economic recovery, when it comes, will be the trigger for renewed trade deterioration. A major surge of imports is unlikely to be matched by adequate export growth, as the weakened competitive position of British industry takes its toll. This worsening of the trade deficit is likely to be significantly greater than the improvement of invisibles.

In the exchange market, a partial switch in attention can be anticipated from the impact of North Sea oil to the lost competitiveness of the non-oil sector. With inflation much reduced, interest rate differentials are likely to have narrowed substantially. In these conditions, retention of their recently built-up short-term positions in sterling could come to seem less attractive to some holders. Some correction to the high real effective exchange rate of sterling, currently some 40% above the 1973-77 average, can at that stage be expected, although a reversion to the mid-1970s level is unlikely.

Statistical appendix

for key to data in tables see pages 18 and 19

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Information herein is from sources considered to be reliable but is furnished without responsibility on the part of Morgan Guaranty Trust Company.

Effective exchange rates

Index numbers, March 1973=100. The index of the effective exchange rate for a currency is a measure of that currency's trade-weighted average appreciation or depreciation vis-à-vis the currencies of 15 other major countries. The exchange rates used in the construction of this index are the averages of daily noon spot exchange rates in New York for months and for weeks ending on dates shown. The trade weights used are based on 1976 bilateral trade in manufactures.

		United States	Canada	Japan	United Kingdom	Germany	France	Italy	Belgium	Netherlands	Switzerland	Austria	Denmark	Norway	Sweden	Australia	Spain
pre-June 1970 parities		118.5	94.9	79.3	116.2	91.6	97.5	110.9	95.9	98.2	88.3	97.8	97.9	98.1	102.2	92.2	98.4
Smithsonian central rates		107.0	101.3	88.7	116.0	95.4	96.1	108.3	97.0	99.1	91.6	98.0	96.0	96.3	100.5	91.7	98.1
1979																	
July		97.3	84.2	115.7	77.3	136.0	89.1	55.4	110.1	117.3	166.3	116.7	98.6	100.6	88.2	73.7	76.9
August		97.7	83.8	115.1	78.6	135.9	89.1	55.6	110.1	117.6	165.8	117.3	98.3	101.2	88.5	74.0	77.2
September		97.6	84.2	112.3	74.5	137.1	89.4	55.4	110.5	118.2	168.8	119.4	99.1	101.6	88.3	74.3	76.6
October		98.9	83.7	108.8	73.0	138.3	89.9	54.6	110.9	118.0	167.7	120.5	98.8	102.8	88.5	74.6	77.0
November		100.2	83.6	102.4	72.7	139.7	90.7	54.4	110.8	118.3	166.0	121.3	98.5	102.0	88.3	74.7	76.7
December		98.7	84.0	103.5	73.9	140.2	91.2	54.4	110.4	119.4	167.5	121.5	94.6	101.3	88.1	74.2	75.3
1980																	
January		97.9	84.3	104.2	75.6	139.9	91.0	54.4	110.4	119.4	166.6	121.6	93.5	101.8	87.9	73.9	75.2
February		98.4	85.0	101.7	77.2	139.3	90.5	54.6	110.0	119.1	163.4	121.7	92.9	103.2	88.0	74.2	75.3
March		101.3	84.3	101.9	77.4	137.8	90.2	53.9	109.6	118.7	159.1	121.4	91.7	104.2	88.2	75.1	75.5
April		102.3	83.4	101.6	78.2	137.1	90.3	53.4	109.9	118.1	161.1	121.0	91.2	104.6	88.4	75.5	73.3
May		98.4	83.6	109.4	78.6	138.1	90.3	53.3	110.6	118.2	163.7	121.4	91.5	103.5	88.1	74.8	71.5
June		96.1	84.9	113.9	78.7	137.9	90.6	53.1	110.8	118.6	164.4	121.7	92.0	103.0	87.8	74.8	71.4
	6	96.8	84.6	112.4	78.7	137.9	90.5	53.3	110.7	118.5	163.6	121.5	91.8	103.3	87.9	74.7	71.9
	13	95.8	85.1	114.5	78.6	138.0	90.5	53.2	110.7	118.7	165.0	121.7	91.9	102.9	87.7	74.6	71.3
	20	95.9	85.0	114.7	78.5	137.9	90.6	53.0	110.9	118.7	164.8	121.7	92.0	102.9	87.8	74.8	71.2
	27	96.0	84.9	114.2	78.8	137.9	90.7	52.9	110.8	118.6	164.2	121.9	92.2	102.9	87.8	74.8	71.2
July	4	96.0	85.1	113.0	79.1	138.0	91.0	52.4	110.9	118.9	165.0	122.1	92.2	102.9	87.8	75.0	71.0
	11	95.4	85.2	113.2	79.1	138.2	91.1	52.6	110.9	119.2	166.4	122.2	92.6	102.7	87.7	74.7	70.1
	18	95.8	84.8	112.7	79.2	138.2	91.0	52.8	110.9	119.1	165.5	122.3	92.4	102.8	87.8	75.0	69.9
	25	96.0	84.6	110.7	79.5	138.2	91.1	52.8	111.1	119.2	165.8	122.4	92.6	102.8	87.8	75.2	69.7

Real effective exchange rates

Index numbers, March 1973=100. The index of the real effective exchange rate is the index of the effective exchange rate adjusted for inflation differentials which are measured by wholesale prices of nonfood manufactures. Exchange rates and trade weights used in the construction of this index are the same as those used for effective exchange rate indices. Annual figures are averages of months.

	United States	Canada	Japan	United Kingdom	Germany	France	Italy	Belgium	Netherlands	Switzerland	Austria	Denmark	Norway	Sweden	Australia	Spain
1976	100.3	106.7	88.3	96.6	101.2	100.0	92.6	97.9	101.8	110.9	106.1	96.2	99.1	109.1	101.8	105.1
1977	100.0	99.8	93.5	101.6	102.5	96.1	95.6	99.8	103.8	105.2	109.2	97.3	99.8	105.1	91.9	100.8
1978	95.4	92.9	107.2	106.4	103.3	96.8	93.8	99.6	103.7	121.7	109.3	103.5	95.6	96.6	87.3	97.0
1979	95.5	92.9	96.1	118.6	104.3	98.6	93.5	97.1	100.2	115.4	107.9	101.7	90.4	99.2	86.0	109.1
1979																
July	94.2	92.9	96.7	127.5	103.7	98.2	93.1	96.6	98.4	115.6	106.3	100.2	88.2	99.9	85.3	112.0
August	94.4	92.7	96.7	126.7	103.4	98.1	94.2	96.0	98.8	113.8	106.3	101.9	88.4	100.6	86.0	112.6
September	94.6	93.3	94.6	123.3	103.8	98.8	94.6	95.8	99.0	115.3	108.1	103.8	88.9	100.2	86.1	111.6
October	96.8	92.8	90.9	121.4	104.5	99.0	93.9	96.1	98.3	113.3	108.9	103.3	89.8	100.1	86.2	110.9
November	98.2	92.3	85.3	121.2	105.7	99.8	93.8	96.1	98.0	112.1	109.5	101.3	89.4	100.7	86.7	109.8
December	96.5	92.9	86.9	123.3	105.9	100.2	95.2	95.5	98.5	112.6	109.1	96.9	89.0	100.3	86.2	107.5
1980																
January	95.5	94.7	87.0	128.2	104.5	100.0	95.9	94.4	99.7	109.8	109.1	95.5	89.1	100.2	85.3	111.8
February	96.6	94.5	85.4	131.8	103.7	99.7	96.8	94.0	97.6	106.9	109.8	94.8	91.2	101.0	86.4	112.0
March	100.1	92.0	86.5	132.6	102.3	99.6	95.6	93.1	96.9	104.4	109.0	94.3	92.9	100.7	86.9	111.7
April	101.4	90.2	86.9	136.7	101.3	99.9	94.9	92.9	96.0	105.8	107.6	93.1	92.0	101.0	87.4	108.2
May	97.2	90.8	93.9	135.3	102.0	100.3	95.0	93.7	96.1	107.7	107.9	94.1	91.3	101.5	87.6	105.6
June	94.7	91.9	99.3	135.2	101.5	101.0	95.2	93.4	96.0	107.2	108.3	94.9	91.8	101.2	87.7	106.4

Euro-currency market size

based on foreign-currency liabilities and claims of banks in major European countries, the Bahamas, Bahrain, Cayman Islands, Panama, Canada, Japan, Hong Kong, and Singapore billions of dollars (rounded to nearest $5 billion), at end of period

	1971	1972	1973	1974	1975	1976	1977	1978	1979		1980
									Sep	Dec	Mar[p]
Estimated size											
Gross	145	200	305	375	460	565	695	895	1070	1155	1235
Liabilities to nonbanks	30	35	55	75	80	100	125	170	220	230	n.a.
Liabilities to central banks	15	25	40	60	70	85	110	120	140	155	n.a.
Liabilities to other banks[a]	100	140	210	240	310	380	460	605	710	770	n.a.
Net	85	110	160	215	250	310	380	485	580	600	630
Claims on nonbanks	35	45	65	100	115	150	195	245	280	295	n.a.
Claims on central banks and on banks outside market area[b]	35	45	75	95	115	135	155	195	245	245	n.a.
Conversions of Euro funds into domestic currencies by banks in market area[c]	15	20	20	20	20	25	30	45	55	60	n.a.
Euro-dollars as % of gross liabilities in all Euro-currencies	73	78	73	77	78	79	76	74	72	72	n.a.

[a] Includes unallocated liabilities
[b] Includes unallocated claims
[c] In European market area only
[r] revised
[p] preliminary

Euro-currency deposit rates

prime banks' bid rates in London, at or near end of month

	1976	1977	1978	1979		1980					
	Dec	Dec	Dec	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Euro-dollar:											
overnight	4.63	7.12	10.62	12.87	14.00	13.50	13.75	19.25	12.25	9.37	9.50
7-day fixed	4.75	6.31	10.62	13.00	14.00	13.62	14.62	19.37	12.75	9.50	9.50
one month	5.13	6.87	11.00	13.56	14.37	14.00	16.12	19.25	14.25	9.87	9.50
three months	5.00	7.19	11.69	14.00	14.44	14.37	16.94	19.69	14.37	10.12	9.75
six months	5.38	7.50	12.31	13.94	14.44	14.37	17.00	19.56	13.69	10.25	9.94
twelve months	5.56	7.67	12.00	12.87	12.87	13.81	16.37	18.00	12.75	10.25	9.87
Euro-mark:											
one month	4.62	2.19	3.19	9.12	8.50	8.25	8.75	8.94	9.06	9.37	9.50
three months	4.69	2.50	3.31	8.81	8.56	8.37	9.31	9.69	9.06	9.37	9.37
six months	4.75	2.81	3.69	8.62	8.56	8.44	9.37	10.06	9.00	9.00	8.81
twelve months	4.81	3.06	3.81	8.00	8.12	8.56	9.44	10.00	8.69	8.50	8.19
Euro-Swiss franc:											
one month	0.94	1.31	—.06	4.25	5.19	4.75	3.75	5.87	5.25	5.56	5.62
three months	1.44	1.37	0.00	4.50	5.75	5.37	5.50	7.12	6.12	5.37	5.69
six months	2.12	1.87	0.12	4.62	5.87	5.62	5.75	7.50	6.25	5.37	5.69
twelve months	2.50	2.25	0.62	4.50	5.56	5.62	5.87	7.00	5.62	5.25	5.12
Euro-sterling:											
one month	16.37	6.50	12.00	16.00	16.75	18.50	17.75	18.00	17.25	17.00	17.37
three months	16.12	6.62	12.62	16.50	16.75	18.00	18.50	18.25	17.25	16.75	16.75
six months	14.75	7.12	13.25	16.25	16.75	17.00	18.37	18.37	16.37	16.12	15.25
twelve months	14.50	7.37	13.00	15.12	15.25	16.00	17.87	17.50	15.37	14.75	14.00
Euro-French franc:											
one month	12.37	12.25	10.50	13.12	13.87	12.12	13.12	13.37	12.50	12.31	12.25
three months	12.62	13.25	9.87	13.62	14.00	12.81	13.87	14.12	12.75	12.50	12.25
six months	12.62	14.00	9.87	13.62	14.12	13.37	14.62	14.50	12.87	12.62	12.25
twelve months	12.50	13.25	10.25	13.62	13.75	13.56	14.62	14.87	13.00	12.75	12.25
Euro-yen:											
one month	7.00	0.62	—.69	8.50	7.62	7.75	9.12	15.00	11.50	12.62	13.00
three months	6.62	1.81	0.62	8.75	8.31	8.25	10.12	15.50	12.50	12.25	12.25
six months	6.44	2.75	1.87	8.44	8.62	8.25	10.37	15.00	11.37	11.37	11.12
twelve months	6.25	3.25	2.19	7.56	7.94	8.25	10.25	13.62	10.37	10.25	9.37

Euro-currency bank credits

publicly-announced in period, in millions of dollars

	1977	*1978*	*1979*	*1980*			*Jan-Jul*	
				May[r]	*Jun[r]*	*Jul[p]*	*1980*	*1979*
Industrial countries	**17 205**	**28 952**	**27 248**	**1 313**	**3 458**	**2 786**	**17 638**	**13 156**
Australia	360	212	941	—	291	—	603	187
Canada	3 292	5 705	1 845	—	—	250	457	500
Denmark	868	2 242	1 205	56	500	44	1 056	1 090
Finland	314	550	92	—	600	40	990	50
France	2 325	1 915	2 955	25	400	750	1 362	1 645
Greece	204	509	1 010	—	—	125	784	140
Ireland	440	616	687	—	—	—	—	650
Italy	1 024	2 485	3 708	50	213	636	3 158	2 105
Norway	182	1 517	935	32	—	30	328	701
Spain	1 973	2 426	4 184	380	346	350	2 687	2 042
Sweden	1 446	1 872	1 263	—	850	100	1 183	273
United Kingdom	1 992	3 899	795	—	—	—	898	490
United States	826	1 206	2 348	295	25	112	957	1 143
Others[a]	1 959	3 798	5 280	475	233	349	3 175	2 140
Developing countries	**20 976**	**37 300**	**47 984**	**4 082**	**2 943**	**1 493**	**17 180**	**27 656**
Non-OPEC countries	13 494	26 902	35 411	2 007	1 720	1 150	10 277	19 997
Argentina	849	1 461	2 965	220	400	179	1 321	1 667
Brazil	2 814	5 634	6 278	200	420	305	1 585	3 477
Chile	591	1 045	867	61	20	82	451	307
Korea	1 265	2 651	3 258	32	—	15	1 119	2 288
Malaysia	212	858	1 168	—	—	—	—	100
Mexico	2 727	7 250	8 243	1 005	317	325	2 487	5 372
Morocco	797	605	500	300	—	—	300	500
Peru	189	—	596	110	25	13	293	438
Philippines	698	2 073	2 067	—	—	117	466	1 120
Taiwan	524	255	1 063	14	50	—	64	393
Other[b]	2 828	5 070	8 406	65	488	114	2 191	4 335
OPEC countries	7 481	10 398	12 553	2 075	1 223	343	6 903	7 659
Algeria	723	2 576	1 906	—	—	—	40	1 086
Indonesia	817	1 118	1 061	—	—	—	780	1 032
Nigeria	1 000	825	1 373	—	73	41	484	764
United Arab Emirates	1 086	726	401	1	50	—	110	374
Venezuela	1 666	2 054	6 830	1 744	1 100	252	4 530	3 693
Other	2 189	3 099	1 373	330	—	50	959	710
Communist countries	**3 394**	**3 767**	**7 325**	**55**	**296**	**372**	**1 353**	**5 700**
China	—	—	3 395	—	—	72	72	3 125
East Germany	832	642	796	55	21	—	76	436
Hungary	300	700	260	—	—	—	250	10
Poland	19	374	849	—	—	300	330	652
Other[c]	2 243	2 051	2 025	—	275	—	625	1 477
International organizations	**190**	**160**	**275**	—	**159**	—	**409**	**125**
TOTAL	**41 765**	**70 179**	**82 812**	**5 450**	**6 856**	**4 651**	**36 580**	**46 637**

a Includes multi-national organizations *b* Includes regional development organizations *c* Includes COMECON institutions *p* preliminary
r revised

International bond yields

long-term issues, at or near end of month

	1976	*1977*	*1978*	*1979*		*1980*					
	Dec	*Dec*	*Dec*	*Nov*	*Dec*	*Jan*	*Feb*	*Mar*	*Apr*	*May*	*Jun*
U.S. companies:											
U.S. dollar	7.39	7.95	8.55	10.07	10.13	10.35	11.27	11.61	10.98	10.39	9.83
Swiss franc	5.46	5.31	5.70	6.54	6.61	6.84	7.27	7.32	7.19	7.23	7.29
European companies:											
U.S. dollar	8.56	8.42	9.21	10.76	10.93	11.61	12.95	13.07	11.94	11.07	10.53
German mark	7.38	6.80	6.84	7.46	7.55	7.74	8.70	9.33	8.36	7.84	7.76
Governments:											
U.S. dollar	8.90	8.42	9.12	10.57	10.66	10.94	12.07	12.17	11.67	11.06	10.47

New international bond issues

new issues in period, in millions of dollars

	1977	1978	1979	1980			Jan-Jul	
				May	June	July	1980	1979
By type:								
Euro-bonds, total	**17 771**	**14 125**	**18 726**	**2 030**	**4 690**	**2 049**	**14 469**	**12 578**
by category of borrower								
U.S. companies	1 130	1 122	2 872	496	620	118	2 083	2 017
Foreign companies	7 347	4 540	7 183	789	1 702	778	5 058	4 449
State enterprises	4 667	3 291	4 524	413	1 176	594	3 853	3 376
Governments	2 936	3 643	2 433	100	387	340	2 009	1 614
International organizations	1 691	1 529	1 714	232	785	219	1 411	1 122
by currency of denomination								
U.S. dollar	11 627	7 290	12 565	1 580	3 427	1 091	10 155	8 012
German mark	4 131	5 251	3 626	204	550	436	2 205	2 764
Dutch guilder	452	394	531	—	284	163	588	347
Canadian dollar	655	—	425	43	52	52	214	347
European unit of account	26	165	253	—	—	—	25	118
Other	878	1 025	1 326	178	377	207	1 357	990
Foreign bonds outside the United States, total	**8 777**	**14 359**	**17 749**	**1 101**	**970**	**1 445**	**8 394**	**10 503**
by category of borrower								
U.S. companies	40	245	217	—	25	—	162	217
Foreign companies	1 421	2 110	3 463	347	225	322	1 628	2 257
State enterprises	2 427	3 163	3 284	324	153	254	1 456	1 411
Governments	2 043	5 771	7 663	336	395	200	2 861	5 435
International organizations	2 846	3 070	3 122	94	172	669	2 248	1 183
by currency of denomination								
German mark	2 181	3 789	5 379	168	170	570	3 306	2 199
Swiss franc	4 970	5 698	9 777	723	634	839	4 271	6 812
Dutch guilder	211	385	75	76	—	—	107	—
Japanese yen	1 271	3 826	1 833	134	139	—	502	1 216
Other	144	671	685	—	27	36	211	276
Foreign bonds in the United States, total	**7 428**	**5 795**	**4 515**	**200**	**500**	**150**	**1 719**	**2 733**
by category of borrower								
Canadian entities	3 022	3 142	2 193	75	250	—	870	1 244
International organizations	1 917	459	1 100	—	—	100	350	775
Other	2 489	2 194	1 222	125	250	50	499	714
By country of borrower:								
Industrial countries	**23 851**	**24 964**	**31 886**	**2 855**	**4 769**	**2 479**	**19 234**	**20 501**
Australia	1 074	1 218	593	—	—	—	230	426
Austria	1 384	1 027	1 218	218	219	302	1 104	641
Canada	5 277	4 764	4 197	243	846	110	2 169	2 899
Denmark	796	1 018	752	160	155	84	684	383
Finland	358	952	699	—	120	—	317	476
France	1 945	1 286	2 106	225	299	97	1 341	1 267
Japan	1 979	3 467	5 775	427	346	445	2 638	3 271
Netherlands	682	251	832	145	443	210	1 030	546
New Zealand	567	744	553	—	61	207	268	280
Norway	1 889	2 751	1 955	30	75	—	578	1 302
Sweden	1 574	876	1 530	292	350	197	1 943	922
United Kingdom	1 915	1 365	1 181	309	357	235	1 180	726
United States	1 353	2 973	6 767	496	655	118	3 495	4 791
Developing countries	**3 421**	**4 227**	**3 085**	**100**	**434**	**177**	**1 289**	**2 203**
Non-OPEC countries	2 676	2 684	2 667	100	434	177	1 069	1 883
Brazil	732	843	930	—	263	30	293	576
Mexico	1 282	568	363	—	125	—	289	338
Philippines	129	170	175	—	—	—	—	75
OPEC countries	745	1 543	418	—	—	—	220	320
Algeria	166	721	208	—	—	—	—	208
Venezuela	438	588	55	—	—	—	120	—
Communist countries	**248**	**30**	**75**	**50**	—	—	**50**	**30**
Hungary	174	—	—	50	—	—	50	—
International organizations	**6 454**	**5 058**	**5 936**	**326**	**957**	**988**	**4 009**	**3 080**
TOTAL	**33 976**	**34 279**	**40 982**	**3 331**	**6 160**	**3 644**	**24 582**	**25 814**

Central bank discount rates

	1976	1977	1978	1979		1980		Current	
	end Dec	end Dec	end Dec	end Sep	end Dec	end Mar	end Jun	July 30 1980	effective since
United States	5.25	6.00	9.50	11.00	12.00	16.00[a]	11.00	10.00	Jul 28, 80
Canada	8.50	7.50	10.75	12.25	14.00	15.69	10.63	10.18	Jul 25, 80
Japan	6.50	4.25	3.50	5.25	6.25	9.00	9.00	9.00	Mar 19, 80
United Kingdom	14.25	7.00	12.50	14.00	17.00	17.00	17.00	16.00	Jul 3, 80
Belgium	9.00	9.00	6.00	9.00	10.50	14.00	13.00	13.00	Jun 25, 80
France	10.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	Aug 31, 77
Germany	3.50	3.00	3.00	5.00	6.00	7.00	7.50	7.50	May 2, 80
Italy	15.00	11.50	10.50	10.50	15.00	15.00	15.00	15.00	Dec 6, 79
Netherlands	6.00	4.50	6.50	8.00	9.50	9.50	9.50	9.00	Jul 21, 80
Austria	4.00	5.50	4.50	3.75	3.75	6.75	6.75	6.75	Mar 21, 80
Denmark	10.00	9.00	8.00	11.00	11.00	13.00	13.00	13.00	Feb 18, 80
Finland	9.25	8.25	7.25	7.25	8.50	9.25	9.25	9.25	Feb 1, 80
Ireland	14.75	6.75	11.85	13.70	16.40	16.85	16.85	16.85	Mar 21, 80
Norway	6.00	6.00	7.00	7.00	9.00	9.00	9.00	9.00	Nov 30, 79
Spain	7.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Jul 26, 77
Sweden	8.00	8.00	6.50	8.00	9.00	10.00	10.00	10.00	Jan 18, 80
Switzerland	2.00	1.50	1.00	1.00	2.00	3.00	3.00	3.00	Feb 28, 80
Argentina	47.00	165.27	108.19	107.04	89.90	74.98	85.86	85.86	Jun 25, 80
Brazil	28.00	28.00	33.00	33.00	33.00	33.00	33.00	33.00	Nov, 78
Korea	13.00	14.00	14.50	14.50	14.50	20.50	19.50	19.50	Jun 5, 80
New Zealand	8.50	10.00	11.00	13.00	14.00	14.00	14.00	14.00	Dec 20, 79
Philippines	6.00	6.00	4.00	4.00	11.00	11.00	11.00	11.00	Dec 1, 79
Singapore	4.00	3.50	4.50	5.75	6.75	8.50	8.50	8.50	Jun 20, 80
South Africa	9.00	9.00	8.50	7.00	7.00	7.00	7.00	7.00	Aug 13, 79
Venezuela	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	Oct 14, 70

a: applicable to large banks; 13% for other banks

Day-to-day money rates

monthly averages

	1976	1977	1978	1979		1980					
	Dec	Dec	Dec	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
United States	4.65	6.55	9.91	13.64	13.74	13.80	13.89	16.66	18.58	11.82	9.62
Canada	8.66	6.84	9.44	12.18	13.83	13.14	12.74	12.13	15.58	13.68	11.37
Japan	7.11	5.01	4.57	7.61	8.02	8.12	8.76	10.73	12.21	12.56	12.62
Australia	7.17	9.96	8.40	7.86	7.84	7.95	8.22	9.26	8.99	10.74	10.34
United Kingdom	14.56	4.81	10.00	11.75	14.87	14.25	16.12	15.00	16.06	15.90	14.06
Belgium	7.51	7.48	6.73	10.01	10.65	11.72	10.18	12.64	14.94	13.78	12.43
France	10.44	9.30	6.67	11.95	12.17	11.99	12.17	12.96	12.40	12.61	12.43
Germany	5.03	3.24	3.61	7.85	9.15	8.25	8.12	8.65	9.06	9.80	10.04
Italy	16.75	11.37	11.00	12.37	16.00	16.50	16.60	16.80	16.62	16.75	16.87
Netherlands	6.89	5.27	10.00	11.07	15.67	11.42	11.01	9.35	10.46	10.80	11.01
Austria	n.a.	9.25	5.37	6.75	8.50	8.75	9.00	10.25	9.87	10.50	10.50
Finland	14.53	22.99	9.29	12.87	13.53	12.70	11.14	11.97	12.36	12.49	12.50
Ireland	14.81	8.00	12.12	16.75	16.88	24.00	16.88	24.00	17.62	17.38	17.38
Spain	8.03	7.22	16.75	9.84	9.61	11.18	11.96	15.25	14.76	17.81	14.22
Sweden	10.69	8.91	6.26	9.08	11.99	10.71	12.31	11.32	10.74	12.07	12.74
Switzerland	0.50	0.85	0.00	1.50	1.25	1.50	1.25	1.75	2.75	4.00	3.75
*Argentina**	n.a.	n.a.	n.a.	76.19	78.22	64.90	61.14	56.92	56.66	58.14	64.92
Brazil	25.92	28.44	35.64	24.00	32.28	27.12	27.48	36.24	17.88	20.52	25.56
Hong Kong	4.81	4.87	9.67	10.37	14.19	14.50	15.75	13.87	13.62	12.37	8.00
Korea	14.00	14.40	15.00	15.00	15.00	19.20	19.20	19.20	19.20	19.20	19.20
Philippines	15.46	14.44	13.22	11.69	16.25	11.41	12.21	14.09	15.45	13.24	11.33
Singapore	3.59	3.59	4.98	6.85	10.17	10.13	9.59	9.55	10.47	11.19	9.42
South Africa	7.59	7.65	7.11	3.59	3.81	3.94	4.01	3.94	4.06	4.23	4.37
Euro-dollars	4.66	6.94	10.80	12.70	14.41	13.77	14.87	16.13	16.90	9.95	9.58

** revised*

Treasury bill rates

bond-equivalent yields, at or near end of month

	1976	1977	1978	1979		1980					
	Dec	Dec	Dec	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
United States	4.41	6.33	9.42	11.68	12.39	12.96	14.92	15.85	10.29	8.05	7.90
Canada	8.14	7.17	10.46	13.62	13.66	13.50	13.55	15.24	15.15	11.58	10.24
Japan	5.68	4.15	3.39	5.17	5.68	5.68	5.68	5.68	5.68	6.82	6.82
Australia	8.73	8.35	8.35	9.02	9.31	9.33	9.52	10.77	11.12	10.83	10.79
United Kingdom	13.98	6.42	12.01	16.75	16.45	16.93	16.71	16.95	16.73	16.75	16.29
Belgium	10.00	9.25	9.25	14.30	14.40	14.40	15.00	17.50	17.00	15.50	13.75
Ireland	14.28	6.74	11.83	16.36	16.37	16.08	16.45	16.76	16.88	16.69	16.57
Italy	17.38	12.81	12.81	13.05	15.62	13.17	15.62	15.87	16.12	15.53	15.86
Netherlands	5.63	6.00	9.50	14.00	12.75	10.75	10.50	10.75	10.25	10.87	10.37
Sweden	9.75	9.21	5.84	9.74	9.74	10.79	10.79	10.78	10.78	12.89	12.89
Argentina*	78.92	109.06	82.55	70.43	71.04	63.77	61.83	59.76	58.55	64.01	70.26
Brazil	38.58	38.08	41.21	27.33	27.84	24.62	23.85	25.90	27.33	24.62	33.84
Korea	n.a.	16.88	17.01	19.53	19.53	22.01	22.01	22.01	22.01	22.01	22.01
Mexico	n.a.	n.a.	12.75	16.85	17.89	18.71	19.30	21.38	22.33	n.a.	n.a.
New Zealand	4.00	7.50	10.50	11.25	11.25	11.25	11.25	11.25	11.25	11.25	11.25
Philippines	9.78	10.04	12.08	12.64	12.63	12.56	12.33	12.31	12.31	12.31	12.46
Singapore	2.99	3.17	4.01	5.65	6.18	6.77	6.74	6.92	7.21	7.10	6.85
South Africa	7.94	8.17	7.61	3.90	4.30	4.29	4.38	4.39	4.47	4.78	4.72

* revised

Representative money-market rates

bond-equivalent yields on major short-term (mostly 3-4 month) money-market instruments, other than Treasury bills, at or near end of month

	1976	1977	1978	1979		1980					
	Dec	Dec	Dec	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
United States	4.75	6.84	10.57	12.90	13.70	13.49	15.45	18.44	13.70	7.90	8.03
Canada	8.62	7.25	10.62	13.65	14.15	13.80	13.75	16.00	15.40	11.75	11.50
Japan	6.75	5.89	4.64	8.14	8.01	8.02	9.86	12.68	12.12	12.53	10.87
Australia	9.75	9.75	9.10	10.50	10.30	10.30	10.40	11.75	14.00	13.50	13.00
United Kingdom	14.38	6.50	12.50	16.81	17.00	17.75	18.31	18.12	17.12	17.00	17.00
Belgium	10.50	9.50	9.25	14.35	14.45	14.50	15.00	17.50	17.00	15.75	14.00
France	10.00	9.19	6.44	12.37	12.62	12.19	13.62	13.69	12.56	12.37	12.25
Germany	4.80	3.60	3.70	9.50	8.70	8.85	9.50	9.80	9.97	10.20	9.95
Ireland	14.69	6.75	13.00	17.75	18.12	18.00	18.37	19.12	18.75	17.88	17.50
Italy	16.63	11.75	11.37	13.62	17.12	17.75	17.62	17.87	16.50	17.12	17.25
Netherlands	5.88	6.25	10.50	14.75	13.00	11.37	12.87	11.25	10.37	11.25	10.62
Spain	11.36	12.06	22.80	12.80	13.20	13.40	13.40	15.50	17.50	18.70	16.90
Switzerland	1.84	2.02	0.50	4.50	6.12	6.00	5.25	7.37	6.37	5.62	5.87
Hong Kong	5.50	5.73	11.82	13.25	14.37	15.37	15.50	15.87	14.75	12.12	8.75
Korea	16.99	16.88	17.01	19.53	19.53	22.01	22.01	22.01	22.01	22.01	22.01
New Zealand	10.37	11.87	12.00	16.25	16.00	16.20	15.75	16.00	15.25	14.25	13.50
Philippines	15.47	11.96	11.48	10.13	10.41	10.33	9.99	11.49	11.79	11.06	12.22
Singapore	3.75	4.81	7.38	8.25	10.12	10.12	10.25	11.50	11.31	10.75	9.75
South Africa	9.73	9.00	7.85	4.12	4.72	4.61	4.93	5.03	5.55	5.34	5.24

Commercial bank deposit rates

at or near end of month

	1976	1977	1978	1979		1980					
	Dec	Dec	Dec	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
United States	4.70	6.80	10.90	13.20	13.55	13.40	15.55	18.50	14.50	8.75	8.90
Canada	8.00	7.25	10.45	13.40	14.05	13.70	13.75	15.50	15.35	11.50	11.00
Japan	4.50	3.25	2.50	4.00	4.00	4.00	4.00	5.00	6.00	6.00	6.00
Australia	9.75	9.50	8.50	10.15	10.25	10.40	10.50	12.35	13.00	13.15	13.33
United Kingdom	14.13	6.37	12.25	16.75	16.81	17.50	17.75	18.12	17.16	17.00	16.88
Belgium	10.00	9.50	9.87	14.63	14.50	14.50	15.12	17.50	15.00	15.75	14.00
France	9.50	9.00	6.50	12.75	12.50	12.25	12.75	12.50	12.50	12.25	11.75
Germany	4.20	3.40	3.50	8.25	7.75	8.00	8.50	9.25	9.25	9.25	9.00
Italy	17.00	17.00	12.50	12.50	13.25	13.25	13.25	13.20	13.25	13.25	13.25
Netherlands	6.13	7.00	11.62	15.00	13.50	12.00	13.00	11.75	10.75	11.50	10.75
Austria	n.a.	9.00	6.75	8.50	8.50	8.75	8.75	9.75	9.87	10.00	10.37
Denmark	9.00	8.00	7.00	10.00	10.00	10.00	12.00	12.00	12.00	12.00	12.00
Finland	5.75	4.25	3.25	4.25	4.25	4.25	5.00	5.00	5.00	5.00	5.00
Ireland	n.a.	6.87	12.75	17.50	17.87	18.00	18.00	19.12	18.75	17.62	17.37
Norway	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Spain	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Sweden	7.75	7.75	6.25	8.75	8.75	9.75	9.75	9.75	9.75	9.75	9.75
Switzerland	1.50	1.12	0.12	3.75	4.75	4.75	4.75	6.75	5.50	4.75	5.25
Argentina*	n.a.	n.a.	86.63	74.46	72.64	66.80	60.71	55.72	54.26	59.01	68.62
Brazil	45.60	39.60	46.80	43.20	45.00	45.48	43.68	44.76	44.76	43.68	43.80
Hong Kong	3.25	1.75	4.50	9.25	9.25	9.25	9.25	10.50	10.50	9.00	6.50
Korea	15.00	13.20	15.00	15.00	15.00	19.20	19.20	19.20	19.20	19.20	19.20
Mexico	8.50	11.00	12.00	16.80	16.75	17.35	18.15	20.71	22.03	n.a.	n.a.
New Zealand	10.25	11.00	12.00	15.75	15.90	15.80	14.25	14.00	14.00	13.75	13.25
Philippines	8.50	8.50	8.50	8.50	10.50	10.50	10.50	10.50	10.50	10.50	10.50
Singapore	3.75	5.31	7.31	8.12	10.31	10.38	10.75	11.81	10.75	10.19	9.06
South Africa	9.75	8.70	7.30	4.00	4.82	4.40	4.75	4.68	5.35	5.22	5.15
Venezuela	8.00	7.00	7.25	15.00	15.00	15.00	15.00	17.00	17.00	13.00	12.00

* revised

Commercial bank lending rates to prime borrowers

at or near end of month

	1976	1977	1978	1979		1980					
	Dec	Dec	Dec	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
United States	6.00	7.75	11.75	15.50	15.25	15.25	16.75	19.50	18.50	14.00	11.50
Canada	9.25	8.25	11.50	15.00	15.00	15.00	15.00	16.50	16.50	13.75	13.25
Japan	7.42	5.47	4.50	6.16	6.51	6.71	6.95	7.70	8.43	9.20	9.70
Australia	11.50	11.50	11.00	10.75	10.75	11.25	11.25	12.25	12.50	12.50	12.50
United Kingdom	15.50	8.00	13.50	18.00	18.00	18.00	18.00	19.00	18.50	18.50	17.50
Belgium	11.75	10.00	10.00	14.75	15.25	15.50	16.50	18.75	18.75	18.75	17.25
France	11.65	11.35	10.95	13.65	13.65	13.65	14.65	14.65	14.15	14.15	14.15
Germany	6.50	6.00	5.50	9.75	9.75	9.75	9.75	10.50	10.50	11.50	11.50
Italy	21.00	16.00	15.00	16.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50
Netherlands	8.50	7.00	12.00	15.00	15.00	13.25	14.25	13.25	12.00	12.75	12.00
Austria	n.a.	9.75	8.75	8.50	8.50	9.50	9.50	9.50	11.00	11.00	11.00
Denmark	14.00	12.50	10.00	13.75	13.75	13.75	15.75	15.75	15.75	15.75	15.75
Finland	9.71	8.85	7.87	8.98	9.06	9.08	9.77	9.82	9.85	n.a.	n.a.
Ireland	14.00	8.25	13.75	16.00	16.00	16.00	16.00	16.00	18.50	18.50	18.50
Norway	8.33	8.33	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
Spain	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
Sweden	10.25	10.25	8.50	10.75	10.75	11.75	11.75	11.75	11.75	11.75	11.75
Switzerland	7.50	6.75	5.00	5.00	5.00	5.00	5.50	5.50	6.75	6.75	6.75
Argentina*	92.47	152.08	86.75	75.68	80.00	72.00	65.00	58.50	60.50	70.50	75.50
Brazil	30.00	52.05	61.70	57.00	57.00	57.00	57.00	57.00	57.00	57.00	57.00
Hong Kong	6.00	4.75	8.75	14.50	14.50	14.50	14.50	16.00	16.00	14.50	12.00
Korea	17.00	15.00	18.50	18.50	18.50	24.50	24.50	24.50	24.50	24.50	23.50
Mexico	15.50	17.00	17.50	19.00	19.00	19.00	19.00	21.39	21.83	22.39	22.47
New Zealand	7.50	8.50	9.75	12.00	11.75	12.00	12.75	12.75	12.75	12.75	12.75
Philippines	14.00	14.00	14.00	14.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00
Singapore	6.78	7.02	7.65	9.18	9.50	10.25	10.55	11.28	12.10	11.98	11.40
South Africa	12.50	12.50	11.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50
Venezuela	9.50	9.50	10.25	13.00	13.00	13.00	13.00	14.00	17.00	12.00	12.00

* revised

Domestic government bond yields

long-term issues, at or near end of month

	1976	1977	1978	1979		1980					
	Dec	Dec	Dec	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
United States	7.20	7.97	9.00	10.09	10.20	11.11	12.60	12.50	10.38	10.24	9.90
Canada	8.47	8.77	9.68	10.94	11.32	12.13	12.91	13.20	12.01	11.39	11.29
Japan	8.61	6.40	6.40	8.78	8.63	8.56	9.17	9.76	9.65	8.75	8.45
Australia	10.50	9.50	8.90	10.40	10.45	10.65	11.50	11.75	11.85	11.85	11.80
United Kingdom	14.31	10.53	12.75	13.98	13.83	13.30	13.89	13.98	13.44	13.30	13.06
Belgium	9.30	8.76	8.80	11.00	11.13	11.42	11.93	12.45	12.02	12.26	11.84
France	11.04	11.07	9.94	12.09	12.59	12.52	14.11	14.44	13.94	13.49	13.34
Germany	7.28	5.52	6.65	7.81	7.91	8.13	8.86	9.72	8.93	8.20	8.00
Italy	13.92	10.82	10.89	11.31	11.28	11.39	11.56	11.63	11.63	11.64	11.80
Netherlands	8.40	8.11	8.48	9.18	9.29	9.41	10.37	11.45	10.59	9.97	9.95
Austria	8.55	9.00	7.91	8.27	8.20	8.20	8.51	8.93	9.50	9.52	9.26
Denmark	14.57	16.83	17.27	18.04	18.28	18.55	19.71	20.37	20.57	20.27	20.90
Finland	10.92	10.25	9.19	9.49	9.58	9.94	10.13	10.38	10.59	10.46	n.a.
Ireland	15.49	11.30	13.44	16.64	16.64	15.95	15.95	15.95	16.20	16.19	15.78
Norway	7.25	8.37	8.19	10.19	10.04	10.10	10.15	10.20	10.26	10.31	10.16
Sweden	9.61	9.84	10.09	11.04	11.22	10.92	11.24	11.26	11.33	11.31	n.a.
Switzerland	4.43	3.75	3.03	4.04	4.20	4.48	5.03	5.09	4.96	4.82	4.72
Argentina*	63.02	181.65	112.18	70.93	47.94	42.58	45.02	54.02	59.98	47.21	57.33
New Zealand	8.70	10.00	10.02	12.96	12.98	13.44	13.45	13.57	13.47	13.75	n.a.
Philippines	13.41	13.40	13.40	13.30	13.20	13.40	13.40	13.40	13.40	13.40	13.40
South Africa	11.00	10.75	9.85	9.34	9.44	9.38	9.33	9.32	9.56	9.69	9.85
Venezuela	7.04	7.24	7.24	7.33	7.29	7.38	7.25	7.33	7.40	7.45	7.45

* revised

Domestic corporate bond yields

long-term issues, at or near end of month

	1976	1977	1978	1979		1980					
	Dec	Dec	Dec	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
United States	7.35	8.30	9.25	10.50	10.75	11.88	12.88	13.75	10.75	11.20	10.63
Canada	9.58	9.71	10.34	11.72	12.07	12.80	13.35	13.90	12.84	12.29	12.14
Japan	8.81	6.68	6.94	8.34	8.34	8.12	8.12	8.75	9.50	8.68	8.23
Australia	12.00	11.00	10.25	11.65	11.65	11.90	12.60	12.75	13.10	13.25	13.15
United Kingdom	15.96	11.88	13.53	14.89	14.96	14.25	14.55	14.99	14.66	14.39	13.98
Belgium	11.88	9.85	9.58	11.70	11.93	11.82	12.22	n.a.	n.a.	n.a.	n.a.
France	11.39	12.09	10.27	12.33	12.92	12.91	14.57	14.80	14.37	14.39	14.16
Germany	7.47	5.92	6.80	8.40	8.20	8.10	8.50	9.60	10.00	9.40	8.90
Italy	16.90	10.71	10.12	9.90	10.22	10.22	10.56	11.12	11.85	12.14	14.12
Netherlands	8.22	7.90	8.62	9.50	9.95	9.78	10.54	12.05	10.85	10.43	9.96
Norway	7.65	8.59	8.37	10.94	10.53	10.71	10.75	10.80	10.85	10.91	10.46
Spain	10.86	11.58	12.17	11.40	11.77	11.34	11.18	11.19	11.45	10.89	10.83
Sweden	9.82	9.83	10.03	9.81	10.21	10.43	10.78	10.85	11.00	11.07	11.71
Switzerland	5.50	4.96	4.85	5.44	5.53	5.61	5.63	6.06	5.77	5.56	5.64
Korea	21.70	19.60	24.00	31.00	32.50	32.50	31.00	31.00	31.00	31.00	30.50
Mexico	15.56	17.56	20.37	22.43	21.99	23.00	23.55	24.49	26.26	24.70	n.a.
Venezuela	10.37	10.39	12.43	14.06	14.55	13.63	13.87	14.86	15.94	14.40	12.81

Key to data in tables

I. International markets

Definitions

An *international bond* issue is one sold outside the country of the borrower. It may be either a Euro-bond issue or a foreign bond issue.

A *Euro-bond* issue is one underwritten by an international syndicate and sold principally in countries other than the country of the currency in which the issue is denominated.

A *foreign bond* issue is one underwritten by a syndicate composed of members from one country, sold principally in that country, and denominated in the currency of that country.

A *Euro-currency bank credit* is a loan in a currency which is not native to the country in which the bank office making the loan is located.

Data on *new international bond issue volume* include all publicly announced issues with an original maturity of three years or more, whether publicly or privately placed, but exclude those where the investor is a central bank, monetary authority, or government.

Data on *new Euro-currency bank credit volume* include all publicly announced loans with an original maturity of more than one year. A loan is included in the period in which the lending banks make a commitment covering the amount and terms of the loan to the borrower.

Categories of borrower

U.S. companies include both parent companies and their financing affiliates, either domestic or foreign.

Other companies include private companies domiciled outside the United States and their affiliates.

State enterprises include public agencies.

Governments include central and local governments.

Country of borrower

The country of the borrower is the residence of the borrowing entity, except where the entity is a financing vehicle, in which case the residence of the parent company and or guarantor is used.

International bond yields

Yields are calculated to the nearest day of maturity. Interest on bonds with annual coupons is discounted semiannually for comparability in computation of yield.

The yield indices are simple arithmetic averages of end-of-month secondary market yields for groups of selected straight-debt securities. Yield indices for six categories of bonds have been calculated according to borrower and currency. They are based on issues of good-quality, well-known borrowers. Occasionally the individual issues in each category are changed.

The number of issues represented in each of the indices is as follows:

Long-Term, U.S. companies, U.S. dollar — —ten Euro-bond issues.

Long-term, U.S. companies, Swiss franc — five foreign bond issues.

Long-term, European companies, U.S. dollar — ten Euro-bond issues.

Long-term, European companies, German mark — ten Euro-bond issues.

Long-term, governments, U.S. dollar — six Euro-bond issues (governments of Italy, Denmark, and France).

Euro-currency deposit rates

All data are prime banks' bid rates for deposits in London. Offer rates commonly used as a basis for Euro-dollar lending are generally .125% above bid rates.

II. Domestic markets

Day-to-day money rates

Argentina — 7-day interbank money.

Austria — day-to-day interbank rate.

Australia — approximate effective interest rate in the authorized short-term money market.

Belgium — interbank call money.

Brazil — overnight financing of Treasury bills (LTN). From December 1979, rates paid for federal funds.

Canada — chartered banks' day-to-day loans.

Finland — Bank of Finland call money.

France — interbank call money against private paper.

Germany — interbank call money.

Hong Kong — interbank 24-hour call rate.

Ireland — interbank call money.

Italy — interbank 48 hour call money.

Japan — Tokyo interbank call money, overnight lenders rate until December 1974. New series as of January 1975, unconditional lenders rate.

Korea — call money.

Netherlands — open-market call money.

Philippines — interbank call money.

Singapore — interbank overnight money.

South Africa — National Finance Corporation call money.

Spain — day-to-day interbank rate.

Sweden — interbank call money.

Switzerland — call money.

United Kingdom — call money.

United States — effective Federal funds rate.

Euro-dollars — prime banks' bid rate for overnight money.

Treasury bill rates

Argentina — 28-day Treasury bills.

Australia — new issues of 13-week Treasury notes.

Belgium — 3-month Treasury certificates.

Brazil — 91-day Treasury bills (LTN).

Canada — 3-month Treasury bills at tender.

Ireland — 3-month Central Bank Exchequer bills.

Italy — 6-month Treasury bills.

Japan — 60- to 62-day noninterest-bearing discount government bills.

Korea — 3-month Treasury bills sold by Korean Central Bank.

Mexico — 3-month Federal Treasury bills.

Netherlands — 3-month Treasury bills.

New Zealand — 3-month Treasury bills.

Philippines — 91-day Treasury bills at tender.

Singapore — 91-day Treasury bills at tender.

South Africa — 3-month Treasury bills at tender.

Sweden — new issues of 3-month Treasury bills.

United Kingdom — 91-day Treasury bills at tender.

United States — 3-month Treasury bills.

Representative money-market rates

Australia — 3-month prime finance company paper.

Belgium — 4-month Fonds des Rentes certificates.

Canada — 3-month prime finance company paper.

France — 3-month interbank money against private paper.

Germany — 3-month interbank deposits.

Hong Kong — 3-month interbank deposits.

Ireland — 3-month interbank deposits.

Italy — 3-month interbank deposits.

Japan — Tokyo interbank call money, unconditional, lender's rate until December 1974. New series as of January 1975, 3-month repurchase agreements.

Korea — 3-month financial bill.

Netherlands — 3-month municipal loans until December 1976. New series as of January 1977, 3-month interbank deposits.

New Zealand — 90-day commercial bills.

Philippines — 90-day promissory notes.

Singapore — 3-month bank acceptances.

South Africa — 90-day bank acceptances.

Spain — 1- to 2-month interbank deposits.

Switzerland — 3-month interbank deposits.

United Kingdom — 3-month interbank deposits.

United States — 3-month prime industrial paper.

Commercial bank deposit rates

Argentina — 30-day time deposits. Average of bank rates published by the Central Bank.

Austria — 3-month time deposits.

Australia — 3-month certificates of deposit.

Belgium — special maximum rate for 3-month time deposits in large amounts.

Brazil — 6-month negotiable certificates of deposit of investment banks net of taxes.

Canada — 3-month time deposits.

Denmark — time deposits of 3-months' notice.

Finland — time deposits of six-month notice.

France — 3-month time deposits of FF. 1,000,000.

Germany — 3-month time deposits in large amounts.

Hong Kong — 3-month certificates of deposit. Rate set by the Hong Kong Exchange Banks' Association.

Ireland — 3-month time deposits.

Italy — 3-month time deposits of Lit. 100 million or more.

Key to data in tables →continued

Japan — 3-month time deposits.

Korea — 3-month time deposits.

Mexico — 3-month certificates of deposit issued by financieras to corporations for amounts over Ps. 1 million. Higher rates available to individuals.

Netherlands — 3-month time deposits in large amounts.

New Zealand — 6-month transferable certificates of deposit.

Norway — 3-month time deposits. Higher rates may be negotiated for 12-month or more time deposits in large amounts.

Philippines — 3-month time deposits.

Singapore — 3-month time deposits until May 1975, 3-month certificates of deposit thereafter.

South Africa — 3-month time deposits at merchant bank until May 1975. Negotiable certificates of deposit from June 1975.

Spain — maximum legal rate for 3-month deposits.

Sweden — deposits at 6-months' notice.

Switzerland — 3-month time deposits.

United Kingdom — 3-month time deposits.

United States — 3-month negotiable certificates of deposit issued by Morgan Guaranty Trust Company.

Venezuela — 6-month certificates of deposit for amounts above Bv. 250,000 until December 1977. New series as of January 1979, 6-month certificates of deposits for domestic borrowers for amounts above Bv. 1,500,000.

Commercial bank lending rates to prime borrowers

Argentina — average rate on 30-day loans.

Austria — overdraft rate for prime borrowers, including commission.

Australia — approximate overdraft rate for prime borrowers. Rate for prime borrowers usually .25% to .75% below the maximum overdraft rate; rate shown is .5% below.

Belgium — prime overdraft rate.

Brazil — commercial bank legal maximum rate (discount basis) for maturities up to 60 days until August 1977. In addition, compensating balances were required. New series as of September 1977, weighted average investment bank lending rates.

Canada — prime rate.

Denmark — approximate rate for loans and advances to prime borrowers.

Finland — average rates on total commercial bank lending.

France — overdraft rate for prime borrowers, including a commission of .05% per month on highest debit balance during the month.

Germany — approximate effective overdraft rate for prime borrowers.

Hong Kong — prime rate.

Ireland — AA corporate borrowing rate.

Italy — unsecured overdraft rate for prime borrowers.

Japan — average rate on loans and discounts of city banks, computed by the Bank of Japan until December 1974. New series as of January 1975, average contracted interest rate for short-term loans of city banks. In addition, compensating balances may be required.

Korea — prime rate.

Mexico — major bank prime rate, subject to legal maximum. In addition, compensating balances are required.

Netherlands — overdraft rate for prime borrowers, including commission.

New Zealand — overdraft rate for prime borrowers.

Norway — overdraft rate, including a commission of .333% prior to July 1978, .25% thereafter, per quarter on the total line of credit.

Philippines — maximum legal rate, for unsecured loans exclusive of service fee.

Singapore — most common overdraft rate, major banks.

South Africa — unsecured overdraft rate for prime borrowers.

Spain — maximum legal rate for discounting commercial bills plus a commission of 1% per annum. In addition, compensating balances may be required.

Sweden — actual interest rate on 3-month loans to prime industrial borrowers.

Switzerland — unsecured overdraft rate for prime borrowers, including commission of .25% per quarter on average or highest outstanding debit balance in quarter.

United Kingdom — unsecured overdraft rate for prime borrowers.

United States — prime rate of Morgan Guaranty Trust Company. In addition, compensating balances are required.

Venezuela — representative rate for prime borrowers until December 1978. New series as of January 1979, similar rate for domestic prime borrowers only.

Domestic government bond yields

Argentina — 7% National Adjustable Bond, third series maturing in 1985, inflation adjusted by the Official Correction Index.

Austria — Austrian National Bank average yield on all outstanding government bonds.

Australia — 20-year government bonds.

Belgium — Belgian National Bank average yield on government bonds maturing in more than five years.

Canada — Bank of Canada average yield on all direct government bonds due or callable in 10 years or more.

Denmark — 5% government bond of 2007 until December 1976. New series as of January 1977, 10% government bonds with maturity of 7 to 8 years.

Finland — rate of interest at issue on central government bonds intended for public subscription, weighted by sales of bonds in the latter half of each month.

France — Institut National de la Statistique et des Etudes Economiques (INSEE) yield on public and semi-public sector bonds.

Germany — Frankfurter Allgemeine Zeitung (FAZ) 7% public authority bond average until September 1978. New series as of October 1978, FAZ 10-year public authority bond average.

Ireland — 15-year government bonds.

Italy — average of yields on six outstanding bonds of public-sector entities, new series as of January 1977.

Japan — average yield on outstanding maturities of 6.5% national government bonds until December 1974. New series as of January 1975, secondary market yield for the 6.1% due 1988 national government bond.

Netherlands — Central Bureau of Statistics (CBS) average yield on three latest 7% to 7.75% government bonds.

New Zealand — average yield on government bonds maturing after 10 years.

Norway — 5% government bond of 1996.

Philippines — Central Bank 5-year Certificate of Indebtedness, regular issue.

South Africa — 25-year government bonds.

Sweden — 15-year government bonds.

Switzerland — Swiss Confederation bond average.

United Kingdom — F.T. (Financial Times) Actuaries 20-year government stock until December 1975. New series as of January 1976, F.T. Actuaries 25-year government stock.

United States — Morgan Guaranty 20-year U.S. Government Bond Index.

Venezuela — Banco Central average yield on public-sector bond issues.

Domestic corporate bond yields

Australia — long-term secured debentures, indicated by Australian United Corporation.

Belgium — Belgian National Bank average yield on private corporate bonds maturing in more than five years.

Canada — McLeod, Young, Weir Co. Ltd., average yield on ten industrial bonds.

France — INSEE tax-adjusted average yield on outstanding private corporate bonds.

Germany — FAZ 6% industrial bond average until September 1978 New series as of October 1978, Bundesbank average yield on industrial bonds

Italy — average of yields of four outstanding bonds of leading Italian industrial companies; new series as of January 1977.

Japan — average of yields on outstanding Nippon Telegraph & Telephone interest-bearing yen debentures until December 1974. New series as of January 1975, secondary market yield for NTT bond maturing April 1987.

Korea — average of yields on 3-year corporate bonds guaranteed by local banks.

Mexico — 9% Teléfonos de Mexico bond, series AA, of 1990 until December 1976. Average of yields of six outstanding Telefonos de Mexico bonds from January 1977.

Netherlands — CBS average yield on three 6% to 6.5% corporate bonds.

Norway — 5.75% Dalen Portland-Cement bond of 1969-1984.

Spain — average yield for a selected group of electricity companies.

Sweden — Central Satistical Bureau average yield on industrial bonds.

Switzerland — average yield on outstanding bonds of four leading Swiss companies.

United Kingdom — F.T. (Financial Times) Actuaries 20-year debentures and loans.

United States — Salomon Brothers index of new issue yields for Aa industrial bonds with five-year call protection.

Venezuela — average of yields on 15-year bond issues of Electricidad de Caracas.

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World Financial Markets

Morgan Guaranty Trust Company of New York

August 1980

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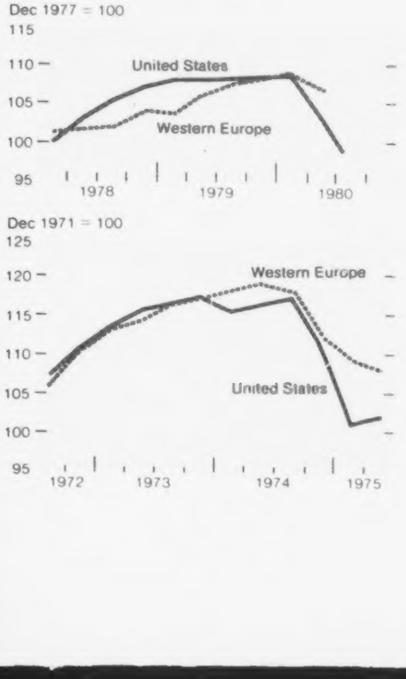
Chart 1

Industrial production



Recession in Europe

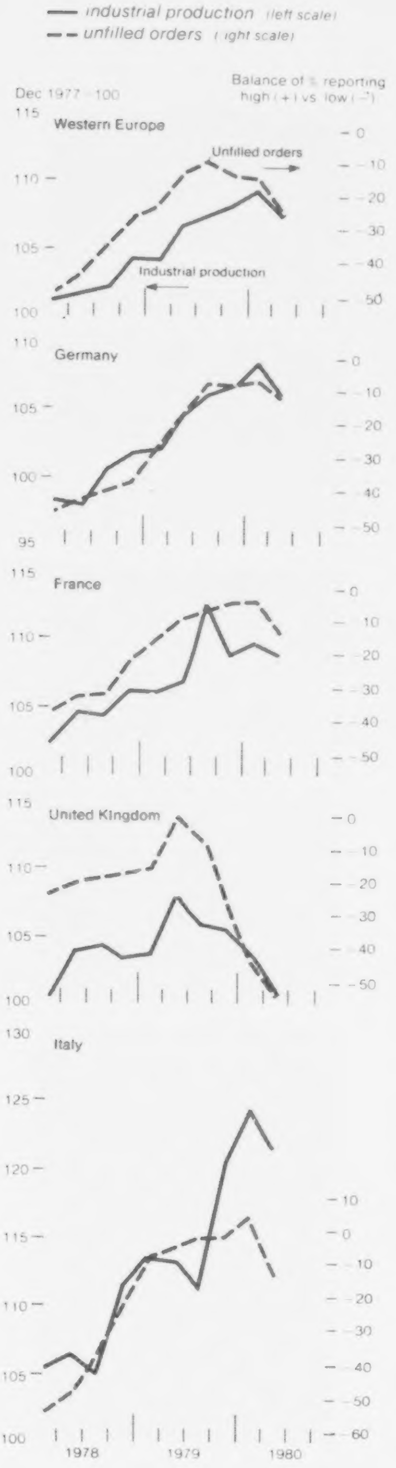
In the second quarter of 1980 the European economy entered what could prove to be a significant recession. In contrast with the long-anticipated and widely publicized recession in the United States, it had been generally expected that Europe would survive the aftermath of the second "oil shock" with nothing worse than a flattening of its economic growth rather than a descent into minus numbers. But, accumulating evidence suggests that the European economy peaked around March or April. Second-quarter real GDP was probably down somewhat from the first, and this downturn will continue in the second half of 1980. A leveling off is forecast for the first half of 1981 with recovery delayed until the second half of next year.

Industrial production peaked in the March-April period in Germany, France, and Italy (see Chart 2). The peak in U.K. output occurred much earlier, in mid-1979. In each case this represents a response to a falloff in orders. Among the medium-sized European countries, weakness is already evident in second-quarter industrial production figures from the Netherlands, Belgium, and Sweden. Spain's economy has been depressed for some time. For Europe as a whole, second-quarter industrial production may have fallen at a 5% annual rate from the first quarter, and GDP by less, perhaps a 1%-2% annual rate. This means that the industrial economies of America and Europe are more synchronous than has been widely supposed. Europe's current recession seems to be only some three months behind America's (see Chart 1), a lag similar to that of 1974-75.

Against this background, the current determination of European central banks to hold up their interest rates in order to avoid exchange rate weakness against the dollar and to minimize "imported" inflation will probably be sustained only temporarily. One unavoidable consequence of the economic downturn will be a significant reduction of interest rates as credit demand drops in response to reduced inventories and investment. A gradual reduction of money-market interest rates has already occurred despite the maintenance of high discount rates throughout Europe during the summer (see Chart 3). The current upswing in U.S. interest rates is delaying a reduction in European discount rates. However, later this year European market rates are likely to resume their downtrend, and discount rates will surely follow in due course. By trying to keep interest

Chart 2

Industrial production and unfilled orders



rates up against market pressures, central banks may delay the downward adjustment but at the risk of a more severe recession, a sharper interest rate decline eventually, and probably greater weakness of European currencies against the dollar later this year and early in 1981.

Causes of recession

The principal causes of the European recession are the erosion in real incomes brought on by the sharp rise in oil prices, leading to a decline in consumer spending, and restrictive monetary and fiscal policies aimed at curbing inflation. Also contributing to the downturn are a sharp drop in inventory building and a weakening of export demand.

The decline in consumer spending in Europe, resulting from falling real disposable income, differs little from the U.S. experience. The sharp rise in oil prices over the last year and a half has resulted in price inflation that has matched or exceeded wage rises (see Chart 4). Allowing for increasing tax burdens and squeezed incomes of the self-employed, personal disposable incomes have fallen behind price increases over the last six to nine months in most European countries. This experience has been particularly marked in Germany and Britain but is only just starting in Italy. In some countries, notably France and to a lesser extent Italy, lower savings helped sustain consumption during 1979 and early 1980, as in the United States. Recently, anti-inflationary government policies and rising unemployment have prompted consumer caution and higher personal savings rates.

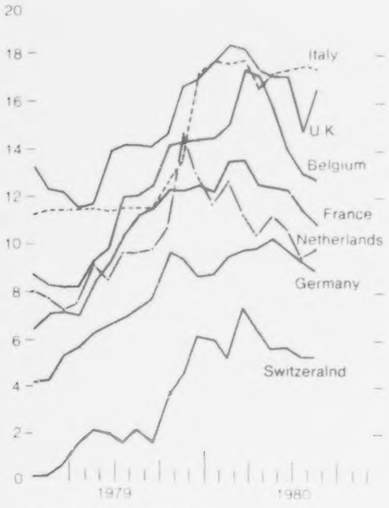
In Germany, real consumer spending began its decline in the latter half of 1979, with fixed investment and inventories the sustaining factors in economic growth for that period. After a temporary recovery in the first quarter of 1980, the decline resumed. Retail sales volume and new car registrations dropped sharply in the second quarter. In France, rapidly growing consumer credit helped maintain spending until the first quarter of 1980. A downturn is now occurring, reinforced by the government's tight credit policy. In the United Kingdom, real consumer incomes have been hit, not just by rising oil prices but also by a substantial value-added-tax increase since July 1979. In Italy, the impact of oil price rises on real incomes was more than offset by wage indexation and by booming output and employment until the second quarter of 1980, but it is now being felt. From now until early 1981 the dominant depressants to consumer spending will be the effects of recession on employment and wage increases, together with a reversion to previous rates of savings from disposable income.

The second fundamental cause of the recession is restrictive government fiscal and monetary policies, a significant aspect of the European response to the latest oil price shock. The more inflationary economies had to abort their 1976 recovery because of rapidly reviving inflation and balance-of-payments deficits. Now they are determined to sustain the long-term, anti-inflationary policy stance that has proved to be consistent with rapid growth of productivity and output in Germany. As a result, the expected 1980 government budget deficits in Europe, measured as a percentage of GDP, are little changed or down from 1979 in most countries, and in the four largest countries, well below the average levels of 1975-78 (see Table 1). This is despite the tendency of a recession to slow tax receipts and raise unemployment benefits. No general reversion to fis-

Chart 3

Domestic money market rates

3-month interbank rates percent per annum at end of month except latest plotting

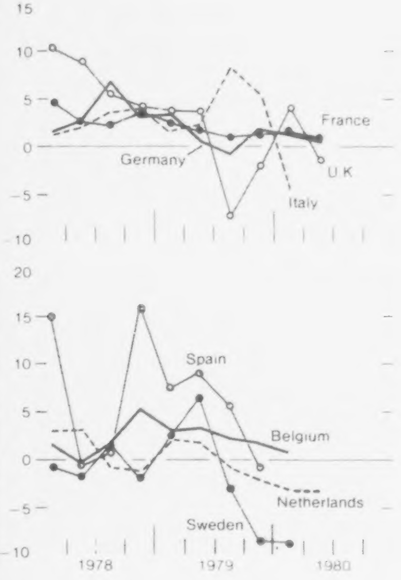


Latest plotting: August 15

Chart 4

Real wages

wages deflated by consumer prices percent change from previous six months at annual rates



cal "pump-priming" is expected in 1981, though selective reflation will be pursued in some countries. Germany, Britain, and the Netherlands expect to reduce their deficits further in 1981 from 1980, while Italy may achieve a sharp reduction from 9.4% to 7% of GDP in 1980 from 1979. The relatively small French deficit should also be lowered this year and again in 1981. In Belgium and Sweden fiscal deficits are expanding, although greater stringency is planned for 1981.

Besides tougher fiscal stances, virtually all European governments are operating with lower targets for growth of money supply and/or bank credit in 1980 than in 1979. Considering the upward move of inflation rates, this shift appears especially restrictive in real terms. The means of achieving these targets include interest rates that are high in nominal terms and, for most countries, in real terms as well.

A feature of the recession that will probably be more pronounced in Europe than in the United States is a sharp drop in inventory building, although an actual liquidation is unlikely. The U.S. recession follows an extended period of stagnation. By contrast, Europe's turn into recession comes at a time when inventories were being built up to meet expectations of growing demand and higher prices. The unexpected shortfall of demand in Germany and Italy has compelled involuntary stock-building. European inventory adjustments will be substantial, especially in view of high carrying costs and declining inflation expectations, and are likely to have a significant negative impact on GDP in the second half of 1980 and the first half of 1981. As a result, imports, especially of oil and raw materials, should be down sharply, with positive implications for the balance of payments in Europe and negative effects on the OPEC balance of trade, industrial commodity prices, and the payments position of commodity-exporting developing countries.

A related cause of the recession in Europe, as seen from the individual country point of view, will be weakening of export demand. Because over two thirds of the European countries' exports are to other European countries, the decline of consumer spending and inventories, abetted by some weakening of investment, will inevitably lead to a reduction of intra-European trade. Europe's exports will also be affected by the U.S. recession and the LDC import cutbacks. This will most strongly affect the countries with the least competitive cost structures. The offsetting impact of increased demand from OPEC countries will also be biased towards countries with more competitive prices. Lack of export competitiveness is accentuating the recession in the United Kingdom and Spain, and export growth could be inhibited for the same reason in Sweden.

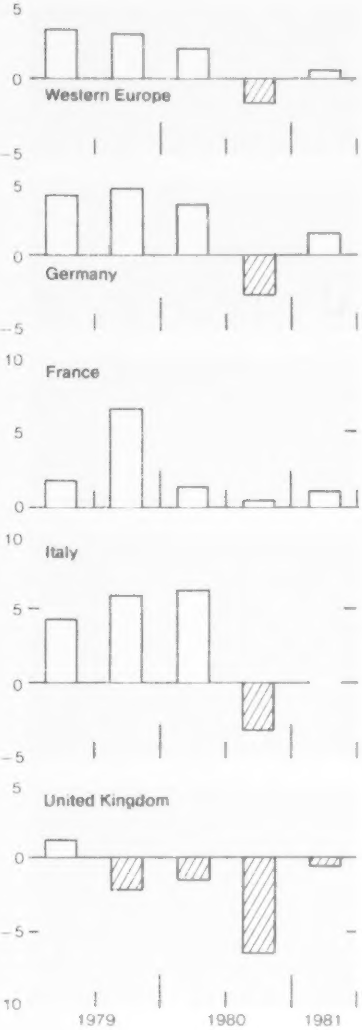
Economic prospects

Three factors suggest a less severe and lengthy European recession in response to the 1979-80 oil price shock than in 1974-75: the relatively favorable performance of European inflation, the more even distribution of balance-of-payments deficits among industrial countries, and the unlikelihood of a strong investment downswing. The six-month rate of consumer price inflation probably peaked for Europe as a whole in April at a 12.9% annual rate versus a corresponding peak of 16.1% in 1974. And, while the impact of higher oil prices on the aggregate current account of industrial nations, measured in relation to GDP, is about equal in 1979-80 to

Chart 5

Real GDP growth

percent change from previous half year at seasonally adjusted annual rates



1973-74, a larger share of the deficit is being borne this time by the relatively strong economies within Europe, notably Germany, and outside Europe, by Japan. Thus, the adjustment process, leading to lower inflation rates and reductions of external payments imbalances, could occur with less of a check to overall economic activity.

Investment should be prevented from too severe a fall by high capacity utilization rates reached in 1979 and early 1980, resulting from under-investment in the mid-1970s when profit margins were squeezed; by the need to invest in new energy sources, e.g., North Sea oil and nuclear power; and by the need to replace plant and equipment rendered obsolete by changed energy and other costs. In addition, profit margins have held up reasonably well (except in Britain) as a consequence of greater restraint in labor costs than was the case in 1974-75. This leaves business better equipped to face the recession and to come out of it ready to finance renewed investment.

The forecast half-yearly development of the European economy as a whole plus that of Germany, France, Britain, and Italy, is shown in Chart 5. These four larger economies, two thirds of the European total, are likely to experience a worse recession in the second to fourth quarters of 1980 than most other European countries. Minimal growth in early 1981 could be followed by a quite rapid pickup in late 1981, led by growing exports to OPEC and to a recovering United States, by consumer spending, and by a turnaround in the inventory cycle.

Britain is experiencing the worst recession in Europe. Budget policy has cut consumer demand since mid-1979, while the high value of the pound has worsened net non-oil exports, more by stimulating imports than by hindering exports. After a nearly 2% annual rate drop between the first and second halves of 1979, the rate of decline of GDP is estimated to have been 1¼% in the first half of 1980. Further decline is forecast at more than 6% in the second half and ½% in the first half of 1981, for a two-year fall in GDP totaling nearly 5%, the worst experience since the early 1930s. A recovery is forecast in the second half of 1981.

In Germany and Italy, after impressive growth rates through the first quarter of 1980, real GDP is estimated to have weakened in the second quarter, at respective annual rates of 1½% and 3½%. Declines are forecast to continue in the second half, possibly at 2½% and 2¾% annual rates respectively, from the first half-year levels. Other countries where a decline in output is possible during 1980 are Spain, the Netherlands, and Denmark.

In France, Belgium, and Sweden, GDP is not expected to decline in the second half of 1980, but the weakness of consumer spending and of exports to other European countries is likely to mean virtually no growth either.

In most continental European countries, GDP is likely to change little in the first half of 1981. Negative "follow-through" responses after the 1980 downturn are expected for investment and inventories. These should offset a pickup in demand from consumers, as inflation starts to fall, and in exports. But in the second half of 1981, those recovery forces should gather momentum.

Implicit in these forecasts is the view that European inflation, although now probably past its peak, will decline only moderately during the balance of 1980 but much more in 1981. Although wage inflation has accelerated only moderately (except in Italy and the United Kingdom) in contrast to the 1974-75 experience,

Table 1

General government deficits

as percent of GDP

	1975-78 average	1979 est.	1980 forecast
Germany	3.7	2.9	2.9
France	1.6	0.9	0.7
Italy	9.6	9.4	7.0
United Kingdom	4.3	2.9	3.0
Belgium	5.2	6.8	7.8
Netherlands	2.1	3.3	2.8
Spain	0.9	2.7	1.9
Sweden	—2.4[a]	2.5	3.0

[a] surplus

Table 2

Consumer price inflation

percent change at annual rate from six months earlier

	1980 latest		1979-80 peak	
	rate	month	rate	month
Europe	12.8	Jun	12.9	Apr
Germany	5.9	Jun	6.3	Nov
France	14.6	Jun	14.9	May
Italy	16.6	Jul	28.1	Feb
United Kingdom	19.2	Jul	23.2	Jun
Belgium	6.5	Jun	6.5[a]	Jun[a]
Netherlands	8.4	Jul	8.4[a]	Jul[a]
Spain	15.8	Jun	17.5	Jan
Sweden	13.7	Jun	18.4	Mar

[a] 1980 peak may not be reached

Table 3

Current account balances

in billions of dollars

	1979	proj. 1980	1980 as % of GDP
Germany	—5.7	—14.0	—1.7
France	1.2	—6.5	—1.0
Italy	5.2	—2.5	—0.7
United Kingdom	—4.9	—1.5	—0.3
Belgium	—3.8	—6.0	—5.0
Denmark	—2.9	—3.0	—4.5
Netherlands	—2.0	—1.0	—0.6
Norway	—1.2	2.5	5.0
Sweden	—2.6	—4.7	—3.9
Switzerland	2.4	0.0	0.0
Spain	1.1	—3.5	—1.6
Others[a]	—3.7	—7.7	—5.2
Total Europe	—16.8	—48.0	—1.5

[a] Austria, Finland, and Ireland

the rise in unit labor costs is now being exacerbated by falling output. The current slight declines in inflation rates from earlier peaks (see Table 2) reflect lower oil and commodity price inflation and profit margins squeezed by recession. However, by early 1981, wage inflation is expected to be slowing, and the decline of output could be arrested, permitting some recovery of profit margins. Oil and commodity prices could still be soft, although possibly offset by some depreciation of European currencies *vis-à-vis* the dollar. During 1981 these conditions, plus rising productivity, should lead to declining inflation rates.

In Western Europe as a whole, inflation (measured over six-month intervals) peaked at a 12.9% annual rate in the six months to April but is still likely to be 11½% in the year to December 1980, implying a 10% annual rate in the second half of this year. During 1981 the rate could fall to less than 9%. In Germany the inflation rate, 6% in January-June, could be 5% in the second half of 1980 but may decline little from that rate during 1981. In France, the peak of 15% in the six months to May should be followed by a decline to a 12½% rate in the six months to December 1980, followed by a 10½% rate during 1981. In Italy, the February peak of 28% could be followed by a drop to 22% during the second half of 1980; the rate could come down to 15% during the first half of 1981 and to perhaps 12% during the second half. Britain's longer and deeper recession could produce an even sharper diminution of inflation, which peaked at a 23% rate during the first half of 1980. Consumer prices may rise at only a 10% rate in the second half, but the rate is unlikely to go into single-digit figures during 1981 unless there is considerable moderation in the upcoming autumn wage round, together with only modest weakening of sterling during 1981.

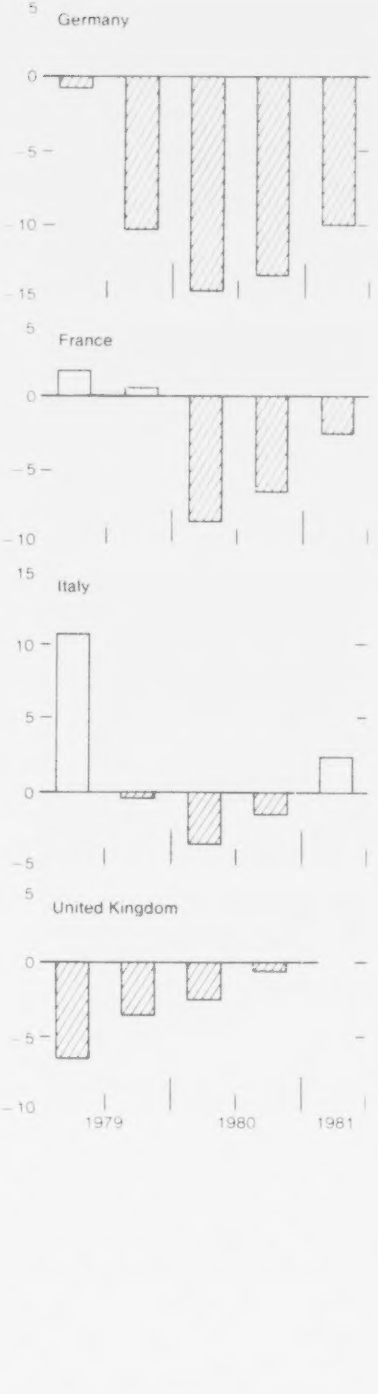
A more immediate improvement seems probable for current account balances. These balances deteriorated sharply in late 1979 and early 1980 (see Chart 6), largely because of higher oil prices, but now the recession is cutting import volume and is dampening commodity prices. Conservation also is helping curb oil imports. Oil consumption is well below year-ago levels in many European countries, and an end to the building of oil inventories should further reduce imports. Rapidly expanding exports to OPEC are also a plus factor. These trends should continue during the first half of 1981, and the full-year 1981 European current account deficit could narrow to $30 billion from $48 billion in 1980. Within this total, sizable reductions are expected in the German and French deficits, while the United Kingdom should improve to balance and Italy to a moderate surplus. Among the medium-sized European economies, significant improvement is expected next year in the Netherlands, owing to recession and higher prices on gas exports, and possibly in Spain. However, Belgium, Sweden, Denmark, and Austria, all of which face large deficts in relation to GDP this year (see Table 3), are not expected to register much improvement in 1981.

Exchange rate implications

For the EMS currencies versus the dollar, the following trends for the next six to nine months would appear to favor dollar appreciation: 1. the U.S. balance of payments surplus on current account contrasts with Europe's deficit; 2. the U.S. inflation rate, worse than the EMS average in early 1980, should about

Chart 6

Current account balances
in billions of dollars
at seasonally adjusted annual rates



equal the EMS average during 1981 (the adverse differential *vis-à-vis* Germany alone should narrow considerably); and 3. the declines in European interest rates resulting from recession are just starting, whereas U.S. rates appear to have bottomed out last June, at least temporarily. Even if there is another residual interest rate fall in the United States at the tail end of the American recession, European rates have further to go.

Even relative to the German mark alone, these factors argue for dollar strength. Although inflation comparisons favor the mark, the current account deficit in Germany remains particularly high and German interest rates, already below those in the United States, are high in relation to inflation and could fall substantially.

Within the EMS, while all participants appear to be moving into recession at about the same time, there is considerable divergence among them in terms of inflation and current account prospects that could strain existing exchange rate parities. The Italian lira situation is discussed in the next section. The currencies of some of the smaller countries could also come under pressure. In the near term, pressures on existing parities can be contained by a combination of tighter monetary policy, exchange market intervention, and increased foreign borrowing. In cases where there are sufficient prospects for improvement in the underlying inflation and balance-of-payments positions, such measures could be enough to hold up the exchange rate. However there is a general agreement among the EMS participants that needed exchange rate adjustments should not be unduly postponed. In view of the current and prospective divergence in economic performance among the various EMS participants, some realignment in existing parities may be needed within the next six to twelve months.

Outside the EMS, the Swedish krona, like its Danish counterpart, is confronted with relatively high inflation and large current account deficits, compounded by uncompetitive exports. The Spanish peseta, sustained after the 1977 devaluation by slow economic growth, now faces the consequences of world recession, together with continued relatively high inflation and the need for economic growth to contain massive and rising unemployment. The British pound could maintain its current high exchange rate with little depreciation in the near term, owing to the length and depth of the recession, further gains in North Sea oil production, and especially high interest rates. After that its prospects will depend on the success of current policies in reducing inflation and improving industrial competitiveness.

The Italian lira

The Italian lira has come under repeated pressure this summer amid rumors of devaluation. Starting 1980 at the top of the EMS band, the lira slid to the bottom in April and is now 3.6% below the top EMS currency, against the permitted maximum of 6%. The shift of the balance of payments into significant deficit has not been conspicuously worse in Italy than in other European countries, and the nominal effective depreciation of the lira so far this year has maintained the competitiveness of Italian industry, as reflected in the lira's fairly stable real effective exchange rate. But the acceleration of inflation in Italy over the last two years has been more marked than in most countries, and exchange market participants are disturbed by the prospect of continued excessive Italian inflation that will have to be offset by depreciation if competitiveness is to be maintained.

The Italian current account balance swung from a surplus of more than $10 billion at an annual rate in the first half of 1979 to a slight deficit in the second half; incomplete results for the first half of 1980 suggest a further worsening to a deficit of $3½-$4 billion at an annual rate. Of this one-year deterioration of $14 billion, some 60% was accounted for by worsening net oil trade, largely reflecting higher oil prices and, to a lesser extent, an inventory buildup of oil products in early 1980. Italy's heavy dependence on imported oil, as well as its vulnerability to oil price upswings is not lessened by a substantive energy policy other than high prices. The non-oil portion of the $14 billion current account deterioration was partly comprised of a fall in exports, initially in response to strikes in the spring of 1979. Booming domestic demand subsequently diverted production to the domestic market, and imports surged in the latter half of 1979 and early 1980, especially for inventories. There also has been a slowing of the previously strong growth in the invisibles surplus, reflecting a less buoyant tourism season because of poor weather as well as the recession elsewhere.

Although Italian inflation is probably past its peak, manufactures price increases are still likely to be five percentage points above the average of Italy's trading partners over the next twelve months. This suggests that export competitiveness may require further lira depreciation. Subject to this, the expected domestic economic downturn, together with buoyant exports to OPEC, could be accompanied by a return to current account surplus in 1981. Although export volume will be depressed by the recession elsewhere, imports are likely to decline faster in volume as inventories are run off. Even with some lira depreciation, the terms of trade should be helped by softness in oil and industrial commodity prices. Meanwhile, the invisibles surplus should expand more rapidly again, with improved tourism and remittances leading the way.

This summer's devaluation rumors have been accompanied by sizable net capital outflows. The authorities have responded by tightening monetary policy, including raising interest rates to very high levels. Italian public-sector entities have stepped up their foreign borrowing. In early July the government also proposed a stabilization program designed to shift resources from consumption to investment and to improve the competitiveness of Italian exporters. This program is now being debated and amended in parliament, where its prospects, however, remain in doubt. A failure to ratify the various proposals could bring down the government and would certainly reduce confidence in the lira.

The Bank of Italy's policy of maintaining the competitiveness of the lira by gradually devaluing to offset relatively high inflation is rendered difficult when high inflation is supplemented by a current account deficit and concern over political instability. But the central bank is determined to avoid a repeat of 1976's run on the lira and, as stated in its recent annual report, to prevent "inflationary pressures originating from depreciation of the exchange rate due to capital outflows." Its ability to walk the tightrope of controlled depreciation will not be aided by the movement of the lira toward the bottom of its permitted EMS band. When the lira reaches that point, the Bank of Italy would be obliged to support the currency against what could become heavy, speculative capital outflows. This potential tension within the EMS could lead to a realignment of parities, possibly before that point is reached.

Statistical appendix

for key to data in tables see the July 1980 issue of World Financial Markets

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Information herein is from sources considered to be reliable but is furnished without responsibility on the part of Morgan Guaranty Trust Company.

Effective exchange rates

Index numbers, March 1973=100. The index of the effective exchange rate for a currency is a measure of that currency's trade-weighted average appreciation or depreciation vis-à-vis the currencies of 15 other major countries. The exchange rates used in the construction of this index are the averages of daily noon spot exchange rates in New York for months and for weeks ending on dates shown. The trade weights used are based on 1976 bilateral trade in manufactures.

	United States	Canada	Japan	United Kingdom	Germany	France	Italy	Belgium	Netherlands	Switzerland	Austria	Denmark	Norway	Sweden	Australia	Spain
pre-June 1970 parities	118.5	94.9	79.3	116.2	91.6	97.5	110.9	95.9	98.2	88.3	97.8	97.9	98.1	102.2	92.2	98.4
Smithsonian central rates	107.0	101.3	88.7	116.0	95.4	96.1	108.3	97.0	99.1	91.6	98.0	96.0	96.3	100.5	91.7	98.1
1979																
August	97.7	83.8	115.1	76.6	135.9	89.1	55.6	110.1	117.6	165.8	117.3	98.3	101.2	88.5	74.0	77.2
September	97.6	84.2	112.3	74.5	137.1	89.4	55.4	110.5	118.2	168.8	119.4	99.1	101.6	88.3	74.3	76.6
October	98.9	83.7	108.8	73.0	138.3	89.9	54.6	110.9	118.0	167.7	120.5	98.8	102.8	88.5	74.6	77.0
November	100.2	83.6	102.4	72.7	139.7	90.7	54.4	110.8	118.3	166.0	121.3	98.5	102.0	88.3	74.7	76.7
December	98.7	84.0	103.5	73.9	140.2	91.2	54.4	110.4	119.4	167.5	121.5	94.6	101.3	88.1	74.2	75.3
1980																
January	97.9	84.3	104.2	75.6	139.9	91.0	54.4	110.4	119.4	166.6	121.6	93.5	101.8	87.9	73.9	75.2
February	98.4	85.0	101.7	77.2	139.3	90.5	54.6	110.0	119.1	163.4	121.7	92.9	103.2	88.0	74.2	75.3
March	101.3	84.3	101.9	77.4	137.8	90.2	53.9	109.6	118.7	159.1	121.4	91.7	104.2	88.2	75.1	75.5
April	102.3	83.4	101.6	78.2	137.1	90.3	53.4	109.9	118.1	161.1	121.0	91.2	104.6	88.4	75.5	73.3
May	98.4	83.6	109.4	78.6	138.1	90.3	53.3	110.6	118.2	163.7	121.4	91.5	103.5	88.1	74.8	71.5
June	96.2	84.9	113.8	78.7	137.9	90.6	53.1	110.8	118.6	164.3	121.7	92.0	103.0	87.6	74.8	71.4
July	96.0	84.8	111.7	79.3	138.2	91.1	52.7	110.9	119.1	165.5	122.2	92.5	102.8	87.8	75.0	70.0
4	96.0	85.1	113.0	79.1	138.0	91.0	52.4	110.9	118.9	165.0	122.1	92.2	102.9	87.8	75.0	71.0
11	95.4	85.2	113.2	79.1	138.2	91.1	52.6	110.9	119.2	166.4	122.2	92.6	102.7	87.7	74.7	70.1
18	95.8	84.8	112.7	79.2	138.2	91.0	52.8	110.9	119.1	165.5	122.3	92.4	102.8	87.8	75.0	69.9
25	96.0	84.6	110.7	79.5	138.2	91.1	52.8	111.1	119.2	165.8	122.4	92.6	102.8	87.8	75.2	69.7
August 1	97.2	84.2	109.3	79.4	137.5	91.0	53.2	110.0	119.1	164.0	122.5	92.4	103.0	88.2	75.7	70.0
8	97.1	84.6	109.9	79.9	137.3	90.9	53.0	110.8	119.0	164.0	122.3	92.0	103.0	88.1	75.5	69.8
15	97.1	84.4	110.6	80.4	137.2	90.8	52.8	110.6	119.1	164.2	122.1	92.0	103.1	88.1	75.7	69.5
22	97.5	84.3	110.9	80.7	137.0	90.7	52.7	110.2	119.1	163.6	121.8	91.6	103.5	88.2	75.8	69.5

Real effective exchange rates

Index numbers, March 1973=100. The index of the real effective exchange rate is the index of the effective exchange rate adjusted for inflation differentials which are measured by wholesale prices of nonfood manufactures. Exchange rates and trade weights used in the construction of this index are the same as those used for effective exchange rate indices. Annual figures are averages of months.

	United States	Canada	Japan	United Kingdom	Germany	France	Italy	Belgium	Netherlands	Switzerland	Austria	Denmark	Norway	Sweden	Australia	Spain
1976	100.3	106.7	88.3	96.6	101.2	100.0	92.6	97.9	101.8	110.9	106.1	96.2	99.1	109.1	101.8	105.1
1977	100.0	99.8	93.5	101.6	102.5	96.1	95.6	99.8	103.8	105.2	109.2	97.3	99.8	105.1	91.9	100.8
1978	95.4	92.9	107.2	106.4	103.3	96.8	93.8	99.6	103.7	121.7	109.3	103.5	95.6	96.6	87.3	97.0
1979	95.5	92.9	96.1	118.6	104.3	98.7	93.5	97.1	100.2	115.4	107.9	101.7	90.4	99.2	86.0	109.1
1979																
August	94.4	92.7	96.7	126.7	103.4	98.1	94.2	96.0	98.8	113.8	106.3	101.9	88.4	100.6	86.0	112.6
September	94.6	93.2	94.6	123.3	103.8	98.8	94.6	95.8	99.0	115.3	108.1	103.8	88.9	100.2	86.1	111.6
October	96.8	92.7	90.9	121.4	104.5	99.0	93.9	96.1	98.3	113.3	108.9	103.3	89.8	100.1	86.2	110.9
November	98.2	92.3	85.3	121.2	105.7	99.8	93.8	96.1	98.0	112.1	109.5	101.3	89.4	100.8	86.7	109.8
December	96.5	92.9	86.9	123.3	105.8	100.4	95.1	95.4	98.4	112.6	109.1	96.9	88.9	100.3	86.2	107.4
1980																
January	95.5	94.7	87.0	128.3	104.6	99.3	96.1	94.6	99.7	109.9	109.1	95.5	89.1	100.2	85.3	111.9
February	96.7	94.5	85.3	131.6	103.6	98.9	96.9	93.9	99.1	106.9	109.7	94.8	91.2	101.0	86.9	112.0
March	100.1	92.0	86.5	132.8	102.2	98.8	95.6	92.9	98.5	103.7	109.0	94.1	92.6	101.3	87.4	111.8
April	101.6	90.2	87.0	134.0	101.2	99.2	95.1	92.6	99.0	104.6	107.8	93.1	91.9	102.3	87.1	108.3
May	97.1	90.9	93.8	135.0	101.6	99.4	95.0	93.0	99.6	105.7	108.7	93.5	90.3	102.9	88.2	105.6
June	94.6	92.1	99.4	135.4	100.8	99.7	95.0	92.4	100.7	105.6	109.5	93.5	90.2	103.3	88.5	106.3
July	95.2	92.6	98.1	136.8	100.7	100.5	94.6	92.1	101.4	105.5	109.1	94.0	89.6	103.8	89.1	103.5

Euro-currency market size

based on foreign-currency liabilities and claims of banks in major European countries, the Bahamas, Bahrain, Cayman Islands, Panama, Canada, Japan, Hong Kong, and Singapore
billions of dollars (rounded to nearest $5 billion), at end of period

	1971	1972	1973	1974	1975	1976	1977	1978	1979		1980
									Sep	Dec	Mar[r]
Estimated size											
Gross	145	200	305	375	460	565	695	895	1070	1155	1200
Liabilities to nonbanks	30	35	55	75	80	100	125	170	220	230	250
Liabilities to central banks	15	25	40	60	70	85	110	120	140	155	155
Liabilities to other banks[a]	100	140	210	240	310	380	460	605	710	770	795
Net	85	110	160	215	250	310	380	485	580	600	635
Claims on nonbanks	35	45	65	100	115	150	195	245	280	295	305
Claims on central banks and on banks outside market area[b]	35	45	75	95	115	135	155	195	245	245	270
Conversions of Euro funds into domestic currencies by banks in market area[c]	15	20	20	20	20	25	30	45	55	60	60
Euro-dollars as % of gross liabilities in all Euro-currencies	76	78	73	77	78	79	76	74	72	72	74

a Includes unallocated liabilities
b Includes unallocated claims
c In European market area only
r revised
p preliminary

Euro-currency deposit rates

prime banks' bid rates in London, at or near end of month

	1976	1977	1978	1979	1980						
	Dec	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
Euro-dollar:											
overnight	4.63	7.12	10.62	14.00	13.50	13.75	19.25	12.25	9.37	9.50	9.12
7-day fixed	4.75	6.31	10.62	14.00	13.62	14.62	19.37	12.75	9.50	9.50	9.25
one month	5.13	6.87	11.00	14.37	14.00	16.12	19.25	14.25	9.87	9.50	9.50
three months	5.00	7.19	11.69	14.44	14.37	16.94	19.69	14.37	10.12	9.75	9.81
six months	5.38	7.50	12.31	14.44	14.37	17.00	19.56	13.69	10.25	9.94	10.06
twelve months	5.56	7.67	12.00	12.87	13.81	16.37	18.00	12.75	10.25	9.87	10.19
Euro-mark:											
one month	4.62	2.19	3.19	8.50	8.25	8.75	8.94	9.06	9.37	9.50	8.69
three months	4.69	2.50	3.31	8.56	8.37	9.31	9.69	9.06	9.37	9.37	8.25
six months	4.75	2.81	3.69	8.56	8.44	9.37	10.06	9.00	9.00	8.81	7.81
twelve months	4.81	3.06	3.81	8.12	8.56	9.44	10.00	8.69	8.50	8.19	7.75
Euro-Swiss franc:											
one month	0.94	1.31	—.06	5.19	4.75	3.75	5.87	5.25	5.56	5.62	5.06
three months	1.44	1.37	0.00	5.75	5.37	5.50	7.12	6.12	5.37	5.69	5.12
six months	2.12	1.87	0.12	5.87	5.62	5.75	7.50	6.25	5.37	5.69	5.25
twelve months	2.50	2.25	0.62	5.56	5.62	5.87	7.00	5.62	5.25	5.12	5.00
Euro-sterling:											
one month	16.37	6.50	12.00	16.75	18.50	17.75	18.00	17.25	17.00	17.37	16.87
three months	16.12	6.62	12.62	16.75	18.00	18.50	18.25	17.25	16.75	16.75	15.62
six months	14.75	7.12	13.25	16.75	17.00	18.37	18.37	16.37	16.12	15.25	14.25
twelve months	14.50	7.37	13.00	15.25	16.00	17.87	17.50	15.37	14.75	14.00	13.25
Euro-French franc:											
one month	12.37	12.25	10.50	13.87	12.12	13.12	13.37	12.50	12.31	12.25	12.37
three months	12.62	13.25	9.87	14.00	12.81	13.87	14.12	12.75	12.50	12.25	12.12
six months	12.62	14.00	9.87	14.12	13.37	14.62	14.50	12.87	12.62	12.25	12.00
twelve months	12.50	13.25	10.25	13.75	13.56	14.62	14.87	13.00	12.75	12.25	11.94
Euro-yen:											
one month	7.00	0.62	—.69	7.62	7.75	9.12	15.00	11.50	12.62	13.00	12.87
three months	6.62	1.81	0.62	8.31	8.25	10.12	15.50	12.50	12.25	12.25	12.25
six months	6.44	2.75	1.87	8.62	8.25	10.37	15.00	11.37	11.37	11.12	11.37
twelve months	6.25	3.25	2.19	7.94	8.25	10.25	13.62	10.37	10.25	9.37	9.75

Euro-currency bank credits

publicly-announced in period, in millions of dollars

	1977	1978	1979	1980			Jan-Aug	
				Jun[r]	Jul[r]	Aug[p]	1980	1979
Industrial countries	**17 205**	**28 952**	**27 248**	**3 458**	**3 065**	**2 013**	**19 890**	**14 779**
Australia	360	212	941	291	—	—	603	187
Canada	3 292	5 705	1 845	—	250	200	657	575
Denmark	868	2 242	1 205	500	44	283	1 339	1 090
Finland	314	550	92	600	90	—	1 040	80
France	2 325	1 915	2 955	400	750	200	1 562	1 645
Greece	204	509	1 010	—	125	76	860	140
Ireland	440	616	687	—	—	111	111	650
Italy	1 024	2 485	3 708	213	836	568	3 926	2 230
Norway	182	1 517	935	—	80	—	378	763
Spain	1 973	2 426	4 184	346	370	20	2 687	2 607
Sweden	1 446	1 872	1 263	850	100	25	1 208	323
United Kingdom	1 992	3 899	795	—	—	200	1 098	678
United States	826	1 206	2 348	25	112	50	1 007	1 143
Other[a]	1 959	3 798	5 280	233	308	280	3 414	2 668
Developing countries	**20 976**	**37 300**	**47 964**	**2 893**	**1 753**	**3 324**	**21 477**	**32 256**
Non-OPEC countries	13 494	26 902	35 411	1 720	1 410	2 522	13 422	23 365
Argentina	849	1 461	2 965	400	179	550	1 871	1 942
Brazil	2 814	5 634	6 278	420	345	457	2 082	4 131
Chile	591	1 045	867	35	97	95	576	482
Korea	1 265	2 651	3 258	—	15	15	1 134	2 325
Malaysia	212	858	1 168	—	—	—	—	118
Mexico	2 727	7 250	8 243	317	425	789	3 382	6 840
Morocco	797	605	500	—	—	—	250	500
Peru	189	—	596	25	13	52	345	438
Philippines	698	2 073	2 067	—	117	10	476	1 256
Taiwan	524	255	1 063	50	—	—	64	593
Other[b]	2 828	5 070	8 406	473	219	554	3 242	4 740
OPEC countries	7 481	10 398	12 553	1 173	343	802	8 055	8 891
Algeria	723	2 576	1 906	—	—	—	40	1 606
Indonesia	817	1 118	1 061	—	—	30	860	1 032
Nigeria	1 000	825	1 373	73	41	54	538	864
United Arab Emirates	1 086	726	401	—	—	—	60	401
Venezuela	1 666	2 054	6 830	1 100	252	504	5 334	4 036
Other	2 189	3 099	1 373	—	50	214	1 223	952
Communist countries	**3 394**	**3 767**	**7 325**	**296**	**397**	**734**	**2 062**	**5 860**
China	—	—	3 395	—	72	67	139	3 175
East Germany	332	642	796	21	—	—	76	436
Hungary	300	700	260	—	—	—	250	10
Poland	19	374	849	—	325	667	1 022	762
Other[c]	2 243	2 051	2 025	275	—	—	575	1 477
International organizations	**190**	**160**	**275**	**159**	—	—	**409**	**125**
TOTAL	**41 765**	**70 179**	**82 812**	**6 806**	**5 215**	**6 071**	**43 838**	**53 020**

[a] includes multi-national organizations [b] includes regional development organizations [c] includes COMECON institutions [p] preliminary
[r] revised

International bond yields

long-term issues, at or near end of month

	1976	1977	1978	1979	1980						
	Dec	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
U.S. companies:											
U.S. dollar	7.39	7.95	8.55	10.13	10.35	11.27	11.61	10.98	10.39	9.83	9.99
Swiss franc	5.46	5.31	5.70	6.61	6.84	7.27	7.32	7.19	7.23	7.29	7.28
European companies:											
U.S. dollar	8.56	8.42	9.21	10.93	11.61	12.95	13.07	11.94	11.07	10.53	10.72
German mark	7.38	6.80	6.84	7.55	7.74	8.70	9.33	8.36	7.84	7.76	7.63
Governments:											
U.S. dollar	8.90	8.42	9.12	10.66	10.94	12.07	12.17	11.67	11.06	10.47	10.50

New international bond issues

new issues in period, in millions of dollars

	1977	*1978*	*1979*	*1980*			*Jan-Aug*	
				June	*July*	*Augp*	*1980*	*1979*
By type:								
Euro-bonds, total	**17 771**	**14 125**	**18 726**	**4 695**	**2 362**	**1 088**	**15 875**	**13 997**
by category of borrower								
U.S. companies	1 130	1 122	2 872	645	233	160	2 383	2 317
Foreign companies	7 347	4 540	7 183	1 702	913	583	5 776	4 884
State enterprises	4 667	3 291	4 524	1 176	599	210	4 068	3 809
Governments	2 936	3 643	2 433	387	398	110	2 212	1 741
International organizations	1 691	1 529	1 714	785	219	25	1 436	1 246
by currency of denomination								
U.S. dollar	11 627	7 290	12 565	3 432	1 256	569	10 794	9 162
German mark	4 131	5 251	3 626	550	494	319	2 582	2 846
Dutch guilder	452	394	531	284	163	137	750	384
Canadian dollar	655	—	425	52	52	—	214	373
European unit of account	28	165	253	—	—	—	25	145
Other	878	1 025	1 326	377	397	63	1 510	1 087
Foreign bonds outside the United States, total	**8 777**	**14 359**	**17 749**	**970**	**1 401**	**922**	**9 272**	**11 680**
by category of borrower								
U.S. companies	40	245	217	25	—	—	219	217
Foreign companies	1 421	2 110	3 463	225	259	150	1 697	2 594
State enterprises	2 427	3 163	3 284	153	331	160	1 693	1 739
Governments	2 043	5 771	7 663	395	142	276	3 079	5 556
International organizations	2 846	3 070	3 122	172	669	336	2 584	1 574
by currency of denomination								
German mark	2 181	3 789	5 379	170	526	331	3 593	2 611
Swiss franc	4 970	5 698	9 777	634	839	423	4 691	7 531
Dutch guilder	211	385	75	—	—	—	107	—
Japanese yen	1 271	3 826	1 833	139	—	—	502	1 262
Other	144	671	685	27	36	168	379	276
Foreign bonds in the United States, total	**7 428**	**5 795**	**4 515**	**500**	**160**	—	**1 729**	**2 813**
by category of borrower								
Canadian entities	3 022	3 142	2 193	250	—	—	870	1 244
International organizations	1 917	459	1 100	—	100	—	350	775
Other	2 489	2 194	1 222	250	60	—	509	794
By country of borrower:								
Industrial countries	**23 851**	**24 964**	**31 886**	**4 774**	**2 758**	**1 594**	**21 112**	**22 525**
Australia	1 074	1 218	593	—	—	94	324	426
Austria	1 384	1 027	1 218	219	302	139	1 243	704
Canada	5 277	4 764	4 197	846	110	—	2 169	3 075
Denmark	796	1 018	752	155	84	183	867	458
Finland	358	952	699	120	—	48	365	476
France	1 945	1 286	2 106	299	156	242	1 642	1 530
Japan	1 979	3 467	5 775	346	491	234	2 918	3 884
Netherlands	682	251	832	443	210	137	1 167	583
New Zealand	567	744	553	61	207	—	268	340
Norway	1 889	2 751	1 955	75	—	—	578	1 357
Sweden	1 574	876	1 530	350	202	110	2 058	1 083
United Kingdom	1 915	1 365	1 181	357	275	27	1 247	801
United States	1 353	2 973	6 767	670	233	160	3 775	5 091
Developing countries	**3 421**	**4 227**	**3 085**	**434**	**177**	**40**	**1 329**	**2 314**
Non-OPEC countries	2 676	2 684	2 667	434	177	40	1 109	1 994
Brazil	732	843	930	263	30	—	293	622
Mexico	1 282	568	363	125	—	—	289	338
Philippines	129	170	175	—	—	—	—	75
OPEC countries	745	1 543	418	—	—	—	220	320
Algeria	166	721	208	—	—	—	—	208
Venezuela	438	588	55	—	—	—	120	—
Communist countries	**248**	**30**	**75**	—	—	**15**	**65**	**56**
Hungary	174	—	—	—	—	15	65	—
International organizations	**6 454**	**5 058**	**5 936**	**957**	**988**	**361**	**4 370**	**3 595**
TOTAL	**33 976**	**34 279**	**40 982**	**6 165**	**3 923**	**2 010**	**26 876**	**28 490**

Central bank discount rates

	1976	1977	1978	1979		1980		Current	
	end Dec	end Dec	end Dec	end Sep	end Dec	end Mar	end Jun	August 27 1980	effective since
United States	5.25	6.00	9.50	11.00	12.00	16.00[a]	11.00	10.00	Jul 28, 80
Canada	8.50	7.50	10.75	12.25	14.00	15.69	10.63	10.45	Aug 22, 80
Japan	6.50	4.25	3.50	5.25	6.25	9.00	9.00	8.25	Aug 20, 80
United Kingdom	14.25	7.00	12.50	14.00	17.00	17.00	17.00	16.00	Jul 3, 80
Belgium	9.00	9.00	6.00	9.00	10.50	14.00	13.00	13.00	Jun 25, 80
France	10.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	Aug 31, 77
Germany	3.50	3.00	3.00	5.00	6.00	7.00	7.50	7.50	May 2, 80
Italy	15.00	11.50	10.50	10.50	15.00	15.00	15.00	15.00	Dec 6, 79
Netherlands	6.00	4.50	6.50	8.00	9.50	9.50	9.50	9.00	Jul 21, 80
Austria	4.00	5.50	4.50	3.75	3.75	6.75	6.75	6.75	Mar 21, 80
Denmark	10.00	9.00	8.00	11.00	11.00	13.00	13.00	13.00	Feb 18, 80
Finland	9.25	8.25	7.25	7.25	8.50	9.25	9.25	9.25	Feb 1, 80
Ireland	14.75	6.75	11.85	13.70	16.40	16.85	16.85	16.10	Jul 2, 80
Norway	6.00	6.00	7.00	7.00	9.00	9.00	9.00	9.00	Nov 30, 79
Spain	7.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Jul 26, 77
Sweden	8.00	8.00	6.50	8.00	9.00	10.00	10.00	10.00	Jan 18, 80
Switzerland	2.00	1.50	1.00	1.00	2.00	3.00	3.00	3.00	Feb 28, 80
Argentina	47.00	165.27	108.19	107.04	89.90	74.98	85.86	88.75	Jul 29, 80
Brazil	28.00	28.00	33.00	33.00	33.00	33.00	33.00	33.00	Nov, 78
Korea	13.00	14.00	14.50	14.50	14.50	20.50	19.50	19.50	Jun 5, 80
New Zealand	8.50	10.00	11.00	13.00	14.00	14.00	14.00	14.00	Dec 20, 79
Philippines	6.00	6.00	4.00	4.00	11.00	11.00	11.00	11.00	Dec 1, 79
Singapore	4.00	3.50	4.50	5.75	6.75	8.50	8.50	8.50	Jun 20, 80
South Africa	9.00	9.00	8.50	7.00	7.00	7.00	7.00	7.00	Aug 13, 79
Venezuela	7.00	7.00	7.50	8.50	11.00	12.00	10.00	10.00	Jun 27, 80

[a]: applicable to large banks; 13% for other banks

Day-to-day money rates

monthly averages

	1976	1977	1978	1979	1980						
	Dec	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
United States	4.65	5.56	10.03	13.78	13.82	14.13	17.19	17.61	10.98	9.47	9.03
Canada	8.66	6.84	9.44	13.83	13.14	12.74	12.13	15.58	13.68	11.37	10.20
Japan	7.11	5.01	4.57	8.02	8.12	8.76	10.73	12.21	12.56	12.62	12.68
Australia	7.17	9.96	8.40	7.64	7.95	8.22	9.26	8.99	10.74	10.34	10.91
United Kingdom	14.56	4.81	10.00	14.87	14.25	16.12	15.00	16.06	15.90	14.06	15.06
Belgium	7.51	7.48	6.73	10.65	11.72	10.18	12.64	14.94	13.78	12.43	11.87
France	10.44	9.30	6.67	12.17	11.99	12.17	12.96	12.40	12.61	12.43	12.04
Germany	5.03	3.24	3.61	9.15	8.25	8.12	8.65	9.06	9.80	10.04	9.81
Italy	16.75	11.37	11.00	16.00	16.50	16.60	16.80	16.62	16.75	16.87	16.87
Netherlands	6.89	5.27	10.00	15.67	11.42	11.01	9.35	10.46	10.80	11.01	10.34
Austria	n.a.	9.25	5.37	8.50	8.75	9.00	10.25	9.87	10.50	10.50	10.75
Finland	14.53	22.99	9.29	13.53	12.70	11.14	11.97	12.36	12.49	12.50	12.50
Ireland	14.81	8.00	12.12	16.88	24.00	16.88	24.00	17.62	17.38	17.38	16.81
Spain	8.03	7.22	16.75	9.61	11.18	11.96	15.25	14.76	17.81	14.22	12.71
Sweden	10.69	8.91	6.26	11.99	10.71	12.31	11.32	10.74	12.07	12.74	11.75
Switzerland	0.50	0.85	0.00	1.25	1.50	1.25	1.75	2.75	4.00	3.75	2.50
Argentina	n.a.	n.a.	n.a.	78.22	64.90	61.14	56.92	56.66	58.14	64.92	83.39
Brazil	25.92	28.44	35.64	32.28	27.12	27.48	36.24	17.88	20.52	25.56	30.84
Hong Kong	4.81	4.87	9.67	14.19	14.50	15.75	13.87	13.62	12.37	8.00	7.25
Korea	14.00	14.40	15.00	15.00	19.20	19.20	19.20	19.20	19.20	19.20	19.20
Philippines	15.46	14.44	13.22	16.25	11.41	12.21	14.09	15.45	13.24	11.33	10.44
Singapore	3.59	3.59	4.98	10.17	10.13	9.59	9.55	10.47	11.19	9.42	9.15
South Africa	7.59	7.65	7.11	3.81	3.94	4.01	3.94	4.06	4.23	4.37	4.26
Euro-dollars	4.66	6.94	10.80	14.41	13.77	14.87	16.13	16.90	9.95	9.58	9.13

Treasury bill rates

bond-equivalent yields, at or near end of month

	1976	1977	1978	1979	1980						
	Dec	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
United States	4.41	6.33	9.42	12.39	12.96	14.92	15.85	10.29	8.05	7.90	9.12
Canada	8.14	7.17	10.46	13.66	13.50	13.55	15.24	15.15	11.58	10.24	10.06
Japan	5.68	4.15	3.39	5.68	5.68	5.68	5.68	5.68	6.82	6.82	6.82
Australia	8.73	8.35	8.35	9.31	9.33	9.52	10.77	11.12	10.83	10.79	10.64
United Kingdom	13.98	6.42	12.01	16.45	16.93	16.71	16.95	16.73	16.75	16.29	14.69
Belgium	10.00	9.25	9.25	14.40	14.40	15.00	17.50	17.00	15.50	13.75	12.75
Ireland	14.28	6.74	11.83	16.37	16.08	16.45	16.76	16.88	16.69	16.57	16.46
Italy	17.38	12.81	12.81	15.62	13.17	15.62	15.87	16.12	15.53	15.86	15.48
Netherlands	5.63	6.00	9.50	12.75	10.75	10.50	10.75	10.25	10.87	10.37	9.87
Sweden	9.75	9.21	5.84	9.74	10.79	10.79	10.78	10.78	12.89	12.89	12.84
Argentina	78.92	109.06	82.55	71.04	63.77	61.83	59.76	58.55	64.01	70.26	70.43
Brazil	38.58	38.08	41.21	27.84	24.62	23.85	25.90	27.33	24.62	33.84	39.14
Korea	n.a.	16.88	17.01	19.53	22.01	22.01	22.01	22.01	22.01	22.01	22.01
Mexico	n.a.	n.a.	12.75	17.89	18.71	19.30	21.38	22.33	22.34	n.a.	n.a.
New Zealand	4.00	7.50	10.50	11.25	11.25	11.25	11.25	11.25	11.25	11.25	11.25
Philippines	9.78	10.04	12.08	12.63	12.56	12.33	12.31	12.31	12.31	12.46	12.54
Singapore	2.99	3.17	4.01	6.18	6.77	6.74	6.92	7.21	7.10	6.85	6.79
South Africa	7.94	8.17	7.61	4.30	4.29	4.38	4.39	4.47	4.78	4.72	4.47

Representative money-market rates

bond-equivalent yields on major short-term (mostly 3-4 month) money-market instruments, other than Treasury bills, at or near end of month

	1976	1977	1978	1979	1980						
	Dec	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
United States	4.75	6.84	10.57	13.70	13.49	15.45	18.44	13.70	7.90	8.03	8.82
Canada	8.62	7.25	10.62	14.15	13.80	13.75	16.00	15.40	11.75	11.50	10.60
Japan	6.75	5.89	4.64	8.01	8.02	9.86	12.68	12.12	12.53	10.87	11.52
Australia	9.75	9.75	9.10	10.30	10.30	10.40	11.75	14.00	13.50	13.00	12.50
United Kingdom	14.38	6.50	12.50	17.00	17.75	18.31	18.12	17.12	17.00	17.00	14.87
Belgium	10.50	9.50	9.25	14.45	14.50	15.00	17.50	17.00	15.75	14.00	13.00
France	10.00	9.19	6.44	12.62	12.19	13.62	13.69	12.56	12.37	12.25	11.44
Germany	4.80	3.60	3.70	8.70	8.85	9.50	9.80	9.97	10.20	9.95	9.30
Ireland	14.69	6.75	13.00	18.12	18.00	18.37	19.12	18.75	17.88	17.50	16.75
Italy	16.63	11.75	11.37	17.12	17.75	17.62	17.87	16.50	17.12	17.25	17.25
Netherlands	5.88	6.25	10.50	13.00	11.37	12.87	11.25	10.37	11.25	10.62	9.37
Spain	11.36	12.06	22.80	13.20	13.40	13.40	15.50	17.50	18.70	16.90	15.00
Switzerland	1.84	2.02	0.50	6.12	6.00	5.25	7.37	6.37	5.62	5.87	5.25
Hong Kong	5.50	5.73	11.62	14.37	15.37	15.50	15.87	14.75	12.12	8.75	7.94
Korea	16.99	16.88	17.01	19.53	22.01	22.01	22.01	22.01	22.01	22.01	22.01
New Zealand	10.37	11.87	12.00	16.00	16.20	15.75	16.00	15.25	14.25	13.50	13.25
Philippines	15.47	11.96	11.48	10.41	10.33	9.99	11.49	11.79	11.06	12.22	9.96
Singapore	3.75	4.81	7.38	10.12	10.12	10.25	11.50	11.31	10.75	[illegible]	9.50
South Africa	9.73	9.00	7.85	4.72	4.61	4.93	5.03	5.55	5.34	5.24	4.93

Commercial bank deposit rates

at or near end of month

	1976	1977	1978	1979	1980						
	Dec	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
United States	4.70	6.80	10.90	13.55	13.40	15.55	18.50	14.50	8.75	8.90	8.90
Canada	8.00	7.25	10.45	14.05	13.70	13.75	15.50	15.35	11.50	11.00	10.50
Japan	4.50	3.25	2.50	4.00	4.00	4.00	5.00	6.00	6.00	6.00	6.00
Australia	9.75	9.50	8.50	10.25	10.40	10.50	12.35	13.00	13.15	13.33	12.41
United Kingdom	14.13	6.37	12.25	16.81	17.50	17.75	18.12	17.16	17.00	16.88	15.87
Belgium	10.00	9.50	9.87	14.50	14.50	15.12	17.50	15.00	15.75	14.00	12.50
France	9.50	9.00	6.50	12.50	12.25	12.75	12.50	12.50	12.25	11.75	11.25
Germany	4.20	3.40	3.50	7.75	8.00	8.50	9.25	9.25	9.25	9.00	8.60
Italy	17.00	17.00	12.50	13.25	13.25	13.25	13.20	13.25	13.25	13.25	13.25
Netherlands	6.13	7.00	11.62	13.50	12.00	13.00	11.75	10.75	11.50	10.75	9.50
Austria	n.a.	9.00	6.75	8.50	8.75	8.75	9.75	9.87	10.00	10.37	10.75
Denmark	9.00	8.00	7.00	10.00	10.00	12.00	12.00	12.00	12.00	12.00	12.00
Finland	5.75	4.25	3.25	4.25	4.25	5.00	5.00	5.00	5.00	5.00	5.00
Ireland	n.a.	6.87	12.75	17.87	18.00	18.00	19.12	18.75	17.62	17.37	16.25
Norway	4.00	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Spain	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Sweden	7.75	7.75	6.25	8.75	9.75	9.75	9.75	9.75	9.75	9.75	9.75
Switzerland	1.50	1.12	0.12	4.75	4.75	4.75	6.75	5.50	4.75	5.25	4.75
Argentina	n.a.	n.a.	86.63	72.64	66.80	60.71	55.72	54.26	59.01	68.62	72.00
Brazil	45.60	39.60	46.80	45.00	45.48	43.68	44.76	44.76	43.68	43.80	45.24
Hong Kong	3.25	1.75	4.50	9.25	9.25	9.25	10.50	10.50	9.00	6.50	6.00
Korea	15.00	13.20	15.00	15.00	19.20	19.20	19.20	19.20	19.20	19.20	19.20
Mexico	8.50	11.00	12.00	16.75	17.35	18.15	20.71	22.03	21.11	n.a.	n.a.
New Zealand	10.25	11.00	12.00	15.90	15.80	14.25	14.00	14.00	13.75	13.25	13.25
Philippines	8.50	8.50	8.50	10.50	10.50	10.50	10.50	10.50	10.50	10.50	10.50
Singapore	3.75	5.31	7.31	10.31	10.38	10.75	11.81	10.75	10.19	9.06	8.59
South Africa	9.75	8.70	7.30	4.82	4.40	4.75	4.68	5.35	5.22	5.15	4.75
Venezuela	8.00	7.00	7.25	15.00	15.00	15.00	17.00	17.00	13.00	12.00	12.00

Commercial bank lending rates to prime borrowers

at or near end of month

	1976	1977	1978	1979	1980						
	Dec	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
United States	6.00	7.75	11.75	15.25	15.25	16.75	19.50	18.50	14.00	11.50	11.00
Canada	9.25	8.25	11.50	15.00	15.00	15.00	16.50	16.50	13.75	13.25	12.50
Japan	7.42	5.47	4.50	6.51	6.71	6.95	7.70	8.43	9.20	9.70	9.65
Australia	11.50	11.50	11.00	10.75	11.25	11.25	12.25	12.50	12.50	12.50	12.50
United Kingdom	15.50	8.00	13.50	18.00	18.00	18.00	19.00	18.50	18.50	17.50	17.50
Belgium	11.75	10.00	10.00	15.25	15.50	16.50	18.75	18.75	18.75	17.25	17.00
France	11.65	11.35	10.95	13.65	13.65	14.65	14.65	14.15	14.15	14.15	13.90
Germany	6.50	6.00	5.50	9.75	9.75	9.75	10.50	10.50	11.50	11.50	11.50
Italy	21.00	16.00	15.00	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50
Netherlands	8.50	7.00	12.00	15.00	13.25	14.25	13.25	12.00	12.75	12.00	11.25
Austria	n.a.	9.75	8.75	8.50	9.50	9.50	9.50	11.00	11.00	11.00	11.00
Denmark	14.00	12.50	10.00	13.75	13.75	15.75	15.75	15.75	15.75	15.75	15.75
Finland	9.71	8.85	7.87	9.06	9.08	9.77	9.82	9.85	9.84	n.a.	n.a.
Ireland	14.00	8.25	13.75	16.00	16.00	16.00	16.00	18.50	18.50	18.50	17.50
Norway	8.33	8.33	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
Spain	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
Sweden	10.25	10.25	8.50	10.75	11.75	11.75	11.75	11.75	11.75	11.75	11.75
Switzerland	6.50	5.75	5.00	5.00	5.00	5.50	5.50	5.75	5.75	5.75	5.75
Argentina	92.47	152.08	86.75	80.00	72.00	65.00	58.50	60.50	70.50	75.50	74.50
Brazil	30.00	52.05	61.70	57.00	57.00	57.00	57.00	57.00	57.00	57.00	57.00
Hong Kong	6.00	4.75	8.75	14.50	14.50	14.50	16.00	16.00	14.50	12.00	10.00
Korea	17.00	15.00	18.50	18.50	24.50	24.50	24.50	24.50	24.50	23.50	23.50
Mexico	15.50	17.00	17.50	19.00	19.00	19.00	21.39	21.83	22.39	22.47	22.53
New Zealand	7.50	8.50	9.75	11.75	12.00	12.75	12.75	12.75	12.75	12.75	12.75
Philippines	14.00	14.00	14.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00
Singapore	6.78	7.02	7.65	9.50	10.25	10.55	11.28	12.10	11.98	11.40	11.10
South Africa	12.50	12.50	11.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50
Venezuela	9.50	9.50	10.25	13.00	13.00	13.00	14.00	17.00	12.00	12.00	12.00

Domestic government bond yields

long-term issues, at or near end of month

	1976	1977	1978	1979	1980						
	Dec	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
United States	7.20	7.97	9.00	10.20	11.11	12.60	12.50	10.38	10.24	9.90	10.70
Canada	8.47	8.77	9.68	11.32	12.13	12.91	13.20	12.01	11.39	11.29	12.32
Japan	8.61	6.40	6.40	8.63	8.56	9.17	9.76	9.65	8.75	8.45	8.63
Australia	10.50	9.50	8.90	10.45	10.65	11.50	11.75	11.85	11.85	11.80	11.80
United Kingdom	14.31	10.53	12.75	13.83	13.30	13.89	13.98	13.44	13.30	13.06	12.52
Belgium	9.30	8.76	8.80	11.13	11.42	11.93	12.45	12.02	12.26	11.84	11.77
France	11.04	11.07	9.94	12.59	12.52	14.11	14.44	13.94	13.49	13.34	13.43
Germany	7.28	5.52	6.65	7.91	8.13	8.86	9.72	8.93	8.20	8.00	7.78
Italy	13.92	10.82	10.89	11.28	11.39	11.56	11.63	11.63	11.64	11.80	12.06
Netherlands	8.40	8.11	8.48	9.29	9.41	10.37	11.45	10.59	9.97	9.95	9.66
Austria	8.55	9.00	7.91	8.20	8.20	8.51	8.93	9.52	9.26	9.04	n.a.
Denmark	14.57	16.83	17.27	18.28	18.55	19.71	20.37	20.57	20.27	20.90	19.95
Finland	10.92	10.25	9.19	9.58	9.94	10.13	10.38	10.59	10.46	10.44	10.49
Ireland	15.49	11.30	13.44	16.64	15.95	15.95	15.95	16.20	16.19	15.78	14.64
Norway	7.25	8.37	8.19	10.04	10.10	10.15	10.20	10.26	10.31	10.16	n.a.
Sweden	9.61	9.84	10.09	11.22	10.92	11.24	11.26	11.33	11.31	n.a.	n.a.
Switzerland	4.43	3.75	3.03	4.20	4.48	5.03	5.09	4.96	4.82	4.72	4.59
Argentina	63.02	181.65	112.18	47.94	42.58	45.02	54.02	59.98	47.21	57.33	81.94
New Zealand	8.70	10.00	10.02	12.98	13.44	13.45	13.57	13.47	13.44	13.49	n.a.
Philippines	13.41	13.40	13.40	13.20	13.40	13.40	13.40	13.40	13.40	13.40	13.40
South Africa	11.00	10.75	9.85	9.44	9.38	9.33	9.32	9.56	9.69	9.85	10.00
Venezuela	7.04	7.24	7.24	7.29	7.38	7.25	7.33	7.40	7.45	7.45	7.45

Domestic corporate bond yields

long-term issues, at or near end of month

	1976	1977	1978	1979	1980						
	Dec	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul
United States	7.35	8.30	9.25	10.75	11.88	12.88	13.75	10.75	11.20	10.63	11.65
Canada	9.58	9.71	10.34	12.07	12.80	13.35	13.90	12.84	12.29	12.14	13.19
Japan	8.81	6.68	6.94	8.34	8.12	8.12	8.75	9.50	8.68	8.23	8.20
Australia	12.00	11.00	10.25	11.65	11.90	12.60	12.75	13.10	13.25	13.15	13.15
United Kingdom	15.96	11.88	13.53	14.96	14.25	14.55	14.99	14.66	14.39	13.98	13.33
Belgium	11.88	9.85	9.58	11.93	11.82	12.22	n.a.	n.a.	n.a.	n.a.	n.a.
France	11.39	12.09	10.27	12.92	12.91	14.57	14.80	14.37	14.39	14.16	13.93
Germany	7.47	5.92	6.80	8.20	8.10	8.50	9.60	10.00	9.40	8.90	8.40
Italy	16.90	10.71	10.12	10.22	10.22	10.56	11.12	11.85	12.14	14.12	14.19
Netherlands	8.22	7.90	8.62	9.95	9.78	10.54	12.05	10.85	10.43	9.96	9.83
Norway	7.65	8.59	8.37	10.53	10.71	10.75	10.80	10.85	10.91	10.46	n.a.
Spain	10.86	11.58	12.17	11.77	11.34	11.18	11.19	11.45	10.89	10.83	10.90
Sweden	9.82	9.83	10.03	10.21	10.43	10.78	10.85	11.00	11.07	11.71	11.80
Switzerland	5.50	4.96	4.85	5.53	5.61	5.63	6.06	5.77	5.56	5.64	5.58
Korea	21.70	19.60	24.00	32.50	32.50	31.00	31.00	31.00	31.00	30.50	29.00
Mexico	15.56	17.56	20.37	21.99	23.00	23.55	24.49	26.26	24.70	23.62	n.a.
Venezuela	10.37	10.39	12.43	14.55	13.63	13.87	14.86	15.94	14.40	12.81	12.82

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LDC prospects and the role of the IMF

The large financial imbalances now threatening the economic growth of the oil-importing developing countries will be among the main concerns of this month's IMF-IBRD meetings in Washington. Once again these countries face adjustment to much higher oil import bills at a time when their export markets are curtailed by the slowdown in industrial countries.

In 1974-75 the recycling of the OPEC surplus through international markets and the IMF's oil facilities enabled many LDCs to sustain reasonably strong economic growth. Among the oil-importing LDCs, the twelve principal borrowers from the private markets (see footnote to Table 1) recorded real GDP growth of 5.3% in 1975, down from 7.8% in 1970-73. Their combined current account deficits climbed to 4.2% of GDP in 1975, from 1.5% in the earlier period. While the increased cost of oil imports amounted to 1.6% of GDP, the industrial country recession was by far the larger factor in the huge deficits sustained by the LDCs that year. By 1978 the industrial country recovery had helped trim the current account deficit of the twelve borrowing countries to just 1.6% of GDP.

These figures show the ability of LDCs to achieve current account adjustment, given time and a favorable world environment. But the prolonged adjustment involved very rapid accumulation of external debt. Credit outstanding from commercial banks to the twelve principal LDC borrowing countries rose an average 33% annually from end-1974 through end-1979, reaching almost $100 billion.

The second oil shock poses a major challenge to the economic and financial management of the borrowing countries, to private international financial markets, to governments of the industrial countries, and to official cooperation through such institutions as the IMF. This article reviews the experience so far in 1980 and explores the possibilities and issues for 1981 and beyond. The unpredictable course of oil prices and balance-of-payments disequilibria makes highly uncertain the magnitude of recycling needs and the ability of the industrial countries to restore healthy economic growth. And the ability of the private sector to maintain as predominant a role in financing the major borrowing countries likewise stands in doubt.

Yet, at this point the IMF is still groping toward a meaningful capa-

Table 1

Current account balance before official transfers

billions of dollars

	1978	*1979*	*1980* proj.*	*1981* proj.*
OPEC	4.3	69.0	118	90
4 major borrowers[1]	—11.0	3.5	8½	9
Other	15.3	65.5	109½	81
Industrial countries	26.7	—13.7	—53	—23
Major[2]	36.7	—4.3	—33	—1
10 major borrowers[3]	—4.2	—14.3	—25	—27
Other	—5.8	4.8	5	5
Non-OPEC LDCs	—31.4	—51.8	—70	—82
Net oil importers	—25.0	—48.0	—69½	—79
12 major borrowers[4]	—9.6	—22.3	—38½	—45
Other	—15.4	—25.7	—31	—34
Net oil exporters	—6.4	—3.8	—½	—3
4 major borrowers[5]	—3.1	—2.0	½	—2
Other	—3.3	—1.8	—1	—1
Comecon and China	—8.0	—7.0	—10	—10
Statistical discrepancy	8.9	3.5	15	25

[1] Indonesia, Nigeria, Venezuela, Ecuador
[2] U.S., Canada, Japan, France, Germany, Italy, U.K., Belgium, Netherlands, Switzerland
[3] Denmark, Finland, Greece, Australia, New Zealand, Portugal, Spain, Yugoslavia, Ireland, Sweden
[4] Argentina, Bolivia, Brazil, Chile, Colombia, India, Korea, Philippines, Taiwan, Thailand, Turkey, Ivory Coast
[5] Mexico, Peru, Malaysia, Trinidad and Tobago
*projections rounded to nearest $500 million

bility to address those recycling requirements that the private sector may be unable to meet. A better balancing of responsibilities is needed among the official and private lenders and governments to achieve orderly financing and adjustment.

Unless LDCs can be assured of adequate finance, many will have no alternative but to severely curtail economic growth. The adverse consequences for industrial countries would not be solely financial. There are humanitarian reasons to promote per capita income growth in the developing world, especially in the poorest countries whose external financial needs have traditionally been met from official sources. Continued growth in developing countries also is vital to the economic prosperity of the industrial countries. Last year, exports to the non-OPEC LDCs reached $180 billion, 34% of all industrial country exports (excluding the regional trade among West European countries and between the United States and Canada). The industrial countries should avoid an overly restrictive approach to LDC financing that would multiply recessionary forces affecting their own economies.

1980 in review

This year, OPEC's current account surplus (before official transfers) will be about $118 billion (see Table 1). While this surplus is almost double that of 1979, as well as that of 1974, a positive development is that the deficit counterpart of the OPEC surplus is more evenly distributed between the major industrial and developing countries in 1980 than was the case in the mid-1970s. Almost all the industrial countries, with the major exception of the United States, are incurring sizable current account deficits this year.

The aggregate current account deficit (before official transfers) for the non-OPEC LDCs is estimated at about $70 billion, an $18 billion increase over 1979. Nearly all of this deterioration is due to larger deficits of the twelve oil-importing LDCs that are major borrowers from the international banking system. Ten small industrial countries that are also heavy borrowers are expected to register an $11 billion current account deterioration to $25 billion, nearly half of the deficit for all industrialized countries. Thus, the current account deficits of these 22 countries, which in recent years have relied heavily on balance-of-payments financing from the banks, will nearly double this year to almost $64 billion.

The overriding influences on the current account trends of these countries are higher oil prices and

Table 2

Gross commercial borrowing requirements for two groups of major borrowing countries

billions of dollars

	1979	*1980 proj.*	*1981 proj.*
12 major non-oil LDCs			
Current account balance	—22.3	—38.3	—45.1
Amortization of long-term external debt	—15.5	—16.6	—17.4
Gross financial requirements[1]	37.8	54.9	62.5
Official loan disbursements	7.9	11.6	12.4
Change of international reserves[2]	—5.7	3.3	2.6
Other flows, net[3]	3.9	3.5	3.0
Gross commercial borrowing requirements (GCBR)	31.7	36.5	44.5
10 small industrial countries			
Current account balance	—14.3	—25.3	—26.9
Amortization of long-term external debt	—10.3	—12.4	—14.1
Gross financial requirements[1]	24.6	37.7	41.0
Official loan disbursements	1.4	1.5	1.6
Change of international reserves[2]	—0.6	—0.7	—3.0
Other flows, net[3]	2.6	3.2	2.5
Gross commercial borrowing requirements (GCBR)	21.2	33.7	39.9

[1] Sum of current account and amortization with sign reversed

[2] Minus sign indicates reserve accumulation; plus sign indicates reserve drawdown

[3] Includes private direct investment

increased interest payments. These factors are more than offsetting the impact on imports of the marked slowing of their economic growth and continued price strength in several important commodities.

Real GDP growth for the twelve non-oil LDCs is estimated to decline this year to a 3% rate on average from 4.7% in 1979. This slowing is curbing the volume growth of their non-oil imports to only 2% this year after a 10% rise in 1979. The situation is broadly similar among the small industrial countries, where average real GDP growth this year is estimated at less than 2% compared with 3.2% in 1979. Indeed, declines in the volume of non-oil imports are occurring in several countries — Brazil, Bolivia, Ivory Coast, Korea, and the Philippines, among the non-oil LDCs; Denmark, New Zealand, Sweden, and Yugoslavia among the small industrial countries.

Exports of several countries are being helped by continued firmness of most commodity prices. In spite of these favorable influences on LDC exports, the weighted-average terms of trade for the twelve major non-oil LDCs should, nonetheless, decline this year by an estimated 10% reflecting the sharp rise in oil prices since the middle of last year. This decline will be over 15% for Brazil and Turkey, both heavy oil importers.

The current account weakening of the major borrowing countries contributes most of the increase in their 1980 external financing requirements (see Table 2). After adding amortization payments on their long-term external debt and allowing for financing from private direct investment, official loans, and changes in international reserves, the gross commercial borrowing requirements (GCBR) for the twelve major non-oil LDCs are estimated at nearly $37 billion, up $5 billion from last year. The ten small industrial countries' combined GCBR is estimated to rise by much more, from $21 billion in 1979 to about $34 billion this year. Accordingly, these 22 countries have an estimated GCBR of about $70 billion this year, a third higher than in 1979.

The smaller increase in borrowing requirements by the LDCs is partly explained by a greater tendency to draw down international reserves and to use IMF facilities than has been the case among the small industrial countries. Half of the LDC group are using reserves this year, $4 billion for Brazil alone, whereas in the small industrial group, only Greece and Yugoslavia are expected to show reserve declines for the year. With respect to IMF facilities, among the LDCs, Bolivia, Korea, Ivory Coast, the Philippines, and Turkey have resorted to IMF programs, while Yugoslavia is the only small industrial country to make use of the IMF this year. During January-July, gross IMF drawings of the twelve non-oil LDCs ran at a $2.1 billion annual rate, compared with $335 million in 1979.

Publicized Euro-currency credits and international bond issues to the twelve major non-oil LDCs are sharply down so far this year to $8.7 billion during January-September from $17.2 billion in the same period of last year. However, in comparing these periods, it should be kept in mind that the Euro-currency credits are gross flows, and the 1979 figures were swollen by advance refinancings and anticipatory borrowings. Moreover, the major LDCs are making less use of the syndicated loan market this year and more use of forms of borrowing that are not publicly disclosed, e.g., bank-to-bank term lending (of great importance this year in Brazil), acceptance credits, and short-term lines of credit. On a *net* basis, Bank for International Settlements (BIS) data indicate that for the first quarter of the year, bank credit to the twelve major non-oil LDCs grew at only a 10% annual rate. Claims on these twelve countries reported by U.S. banks, including their overseas branches, increased at a 16% annual rate in the first half of this year. There was some acceleration between the first and second quarters, which could point to a more rapid rate for the year as a whole. Nonetheless, bank claims on the twelve major non-oil LDCs are expected to rise at a rate well below the 34% rate experienced in 1979.

The outlook for 1981

Next year, the OPEC surplus (before official transfers) is projected to decline by about $28 billion, to $90 billion. OPEC imports could be up by more than 25%, or 15% in volume, while oil exports may rise by only 6% but may decline by 4% in volume. The 100% increase in real oil prices from December 1978 to date and the slowing of economic activity in industrial countries are curtailing world oil consumption. OPEC oil exports fell by 8% during the first half of this year from a year ago; for the whole of 1980 they may be down by over 10%. Continued sluggish economic growth and conservation in industrial countries next year, together with increases in oil production in some non-OPEC countries, are likely to contain further the demand for OPEC oil export volume next year. These trends in turn should have a moderating influence on oil prices. Following a more than 60% rise this year to an annual average of nearly $32 per barrel, the average OPEC price is assumed to rise by 11% next year, or about 1% in real terms.

The projected $28 billion decline in the OPEC surplus will probably be mirrored entirely in a drop in the current account deficit of the major industrial countries. These countries' aggregate economic growth is projected at a low 1¼% rate, and they are also the principal beneficiaries of the growth of OPEC import demand.

This low economic growth will hurt the non-oil LDCs, particularly those that export manufactures, and the small industrial countries. Furthermore, the deterioration of the LDCs' terms of trade is likely to continue in view of the projected 10% rise in manufactures prices combined with likely softness of prices for most metals and tropical agricultural products.

In addition, interest payments on external debt will remain a significant burden on the developing countries. For the twelve major non-oil LDCs, interest payments are now running at a $16 billion annual rate, which is equivalent to 12% of exports for the group as a whole. This percentage is almost double the average experienced during 1970-78, which reflects the rise of LDC debt and sharply higher interest rates.

As shown in Table 1, the aggregate deficit of all non-OPEC LDCs is projected at $82 billion in 1981, a $12 billion increase. Over half of this increase is expected to be incurred by the twelve major non-oil LDCs. To finance this increased deficit, a few countries (Argentina, Chile, and India) still have some scope for international reserve usage, but most of the other countries probably do not. For the group of twelve, import cover is now about four months on average, versus an average of five months during 1976-79, and it will decline to about three months by end-1981, even under the assumption of negligible reserve change. The decline in import cover is particularly marked in Brazil, Korea, and Turkey.

Thus, the combined GCBR for the twelve major non-oil LDCs is projected at nearly $45 billion, an $8 billion increase over 1980 (half of which is attributable to Brazil). Assuming continued dependence on bank financing in line with the recent experience, a GCBR of this size would imply an acceleration of the growth of bank loan exposures in some countries and the continuation of high rates of expansion in several others. For example, the rate of growth of bank debt would have to accelerate to about 20% in Brazil and would continue at considerably higher rates in the Ivory Coast, Korea, Taiwan, and Thailand.

The projected growth of bank debt for the ten small industrial countries as a group in 1981 is about 18%, slightly slower than is estimated for 1980, mainly because only a modest $2 billion current account deterioration is expected. Nonetheless, within the group, several countries (e.g., Finland, Greece, and Ireland) have external payments outlooks that would call for 25%-30% growth in bank debt.

Will international bank lending continue to grow at these projected high rates in the coming year? Bank attitudes will be influenced particularly by three factors: the sustained willingness and ability of key deficit countries to pursue domestic economic policies aimed at external adjustment, the ability of the IMF to increase significantly its role in the recycling process, and the medium-term balance-of-payments prospects of the major borrowing countries. With respect to the third point, will the 1980-81 financing requirements represent only a bulge followed by a slowing thereafter or are they only the start of an extended period of heavy credit demands by the major borrowing countries?

Three scenarios for 1982-85

The prospects of the major borrowing countries in the medium run are clouded by uncertainty over the future trend of oil prices and of economic performance in the industrial countries. Table 3 shows three scenarios: a "base case" together with optimistic and pessimistic alternatives.

In the base case, OECD real GNP growth recovers to a 3% annual rate in 1982-85 following the slowdown of 1980-81, accompanied by a growth of world trade at about a 5% annual rate. Assuming stable oil markets, real oil prices would rise at a pace roughly equal to OECD growth, along the lines of the proposed OPEC pricing formula. OECD inflation would continue at about the same 9%-10% rate as in the past several years, accompanied by interest rates that are slightly positive in real terms.

In the optimistic case, it is assumed that energy conservation by the industrial countries inhibits any

Table 3

Three scenarios and their impact on bank debt in selected groups of countries[1]

					Base case		*Optimistic case*		*Pessimistic case*	
	1974-75	*1976-79*	*1980*	*1981*	*1982*	*1983-85*	*1982*	*1983-85*	*1982*	*1983-85*
ASSUMPTIONS:										
% per annum:										
OECD real GNP growth	0.0%	4.1%	1.1%	1.3%	3.5%	3.0%	4.0%	3.5%	3.0%	1.5%
OECD real import growth	—3.8	7.3	1.5	—2.0	10.0	5.0	12.0	9.0	8.0	2.5
OECD GNP deflator	11.6	9.3	11.0	10.0	9.0	9.5	8.0	7.5	12.0	12.5
Six-month LIBOR	9.4	8.5	13.0	10.0	10.0	10.5	9.0	9.5	12.0	12.5
Real oil price change	55.5	6.1	42.5	1.0[a]	3.5	3.5	0.0	0.0	5.0	11.5
OPEC current account surplus billions of dollars, annual averages	51	36	118	90	87	76	68	33	91	130
Real GDP growth:										
12 major non-oil LDCs	5.8	5.4	3.1	3.9	5.0	5.0	5.0	5.0	5.0	5.0
10 small industrial countries	2.8	2.8	1.8	1.4	3.0	3.0	3.0	3.0	3.0	3.0
9 oil-exporting borrowers	6.0	5.9	5.7	6.4	6.5	6.5	6.5	6.5	6.5	6.5
RESULTS:										
Current account balance billions of dollars, annual averages:										
12 major non-oil LDCs	—14.6	—12.0	—38.3	—45.1	—40	—51	—34	—22	—43	—103
10 small industrial countries	—12.5	—11.6	—25.3	—26.9	—22	—25	—17	—2	—23	—69
9 oil-exporting borrowers	—0.5	—8.7	18.1	11.4	12	3	8	—10	8	26
as % of GDP:										
12 major non-oil LDCs	—3.9	—2.1	—4.9	—5.1	—4.0	—4.0	—3.5	—2.0	—4.0	—6.5
10 small industrial countries	—3.2	—2.1	—3.3	—3.1	—2.5	—2.0	—1.5	—0.2	—2.5	—5.0
9 oil-exporting borrowers	—0.2	—3.1	4.0	2.0	2.0	0.5	1.0	—1.0	1.0	2.5
Gross commercial borrowing requirements (GCBR) billions of dollars, annual averages:										
12 major non-oil LDCs	11.5	24.0	36.5	44.5	52	71	45	40	61	129
10 small industrial countries	12.7	20.8	33.7	39.9	44	53	38	28	50	103
9 oil-exporting borrowers	6.8	16.2	9.9	10.9	19	30	20	38	28	24
as % of goods and services exports:										
12 major non-oil LDCs	23.6	28.6	28.3	30.6	29.0	29.5	25.0	16.5	33.5	48.5
10 small industrial countries	14.2	17.2	16.9	17.6	16.5	15.5	14.0	8.0	18.5	26.0
9 oil-exporting borrowers	12.1	20.4	6.2	6.0	9.0	10.5	10.0	14.5	13.0	7.0
External debt to foreign banks billions of dollars, end of period:										
12 major non-oil LDCs	33.4	96.7	116.7	142.4	171	279	166	213	177	404
10 small industrial countries	27.0	79.9	96.2	113.8	131	193	173	183	134	296
9 oil-exporting borrowers	28.6	80.2	89.3	93.1	100	150	99	167	107	153
% growth per year:										
12 major non-oil LDCs	55 est.	27.7	20.7	22.0	20.0	18.0	16.5	8.5	25.0	32.0
10 small industrial countries	20 est.	26.7	20.5	18.2	15.0	14.0	11.0	3.5	20.0	30.0
9 oil-exporting borrowers	n.a.	24.2	11.4	4.2	7.5	14.5	9.5	19.2	16.5	13.0

[a] 1% real oil price in base case only; no change in optimistic case; 5% decline in pessimistic case

[1] Country groups composed as follows:
12 major non-oil LDCs—Argentina, Bolivia, Brazil, Chile, Colombia, India, Ivory Coast, Korea, Philippines, Taiwan, Thailand, Turkey
10 small non-oil industrial countries—Australia, Denmark, Finland, Greece, Ireland, New Zealand, Portugal, Spain, Sweden, Yugoslavia
9 oil-exporting borrowers—Ecuador, Indonesia, Malaysia, Mexico, Nigeria, Norway, Peru, Trinidad and Tobago, Venezuela

rise in real oil prices and permits somewhat faster real growth, considerably more buoyant world trade, and lower inflation. The demand for OPEC oil is limited to only 25-26 million bpd on average. Under these assumptions, the OPEC surplus nearly disappears by 1985, even with a steady decline in import volume growth (to 5% by 1985, half the rate assumed in the base case).

The pessimistic case assumes a new surge in real oil prices in 1983-84. The projected hike in oil prices is likely to prompt a burst of inflation and high interest rates, severely depressing world economic growth.

In order to evaluate the financial implications of varying the global assumptions, the real GDP growth rates of the borrowing countries are unchanged in all three scenarios: 5% annual average rate during 1982-85 for the twelve non-oil LDCs, 3% for the small industrial countries. These rates are one percentage point below actual performance in the 1970s, whereas approximately unchanged growth of 6.5% per annum is assumed for the nine oil-exporting borrowers.

The implications of each scenario for the borrowing-country groups are summarized in Table 3 by (1) the current account deficit and its ratio to GDP, changes in which are a measure of external adjustment; (2) the GCBR and its ratio to exports, which is a measure of vulnerability to cash-flow problems; and (3) the implied growth of external debt owed to banks, again assuming a financing pattern similar to that of the recent past.

The base case highlights the difficult situation likely to face the non-oil LDCs even under moderate oil-price trends. The current account deficit of the twelve countries as a group would remain very large, about $50 billion on average and 4% in relation to their GDPs through the mid-1980s, somewhat better than the 1980-81 estimates but well above the 1976-79 level. Vulnerability to cash-flow difficulties would not diminish from present levels. Adjustment prospects would be somewhat better for the small industrialized countries since their burden of oil imports and debt service generally is less than that for the LDCs. Their current account/GDP ratio for 1982-85 would return to the 1976-79 levels, but cash-flow vulnerability would decline only marginally.

Under the optimistic scenario, the outlook for oil-importing countries would improve considerably. The figures in Table 3 suggest that a half percentage point increase in real GDP growth of OECD countries, coupled with no rise in real oil prices, could cut the size of the non-oil LDCs' deficits by half and almost eliminate them for the small industrial countries.

The pessimistic case would be extremely adverse to both groups. The aggregate current account deficit during 1983-85 would average 6.5% of GDP for the non-oil LDCs and 5% for the small industrial countries, higher ratios than ever before experienced by either group over an extended period.

Under all three scenarios, net bank lending growth is assumed (in line with recent experience) to constitute about two thirds of the total increase in the external debt of the oil-importing borrowers and virtually the entire increase in the debt of the oil-exporting borrowers. For the twelve non-oil LDCs, the growth rate of bank debt in the optimistic case would diminish to only 8.5% per year during 1983-85. The pessimistic case calls for acceleration to 32% annual growth. The base case projection of 18% per year would be only fractionally below the rate of increase projected during 1981-82. The results for the ten small industrial countries are broadly similar, but in each scenario the projected growth of bank debt is somewhat less.

These three scenarios demonstrate the sensitivity of the financing needs of major borrowers to varying assumptions about world economic prospects through 1985. Although the most probable outcome is hard to assess, the fragility of the Middle East political situation and OPEC's dominance of oil markets at least argue against optimism.

The role of the banks

Under the optimistic scenario, in which real oil prices are unchanged and the OPEC surplus declines fairly rapidly, it is realistic to expect that banks will continue to provide the bulk of needed financing. Even though the combined GCBR of the twelve non-oil LDCs and the ten small industrial countries is likely to be very large during the next two years, financial markets could look forward to smaller external imbalances in subsequent years and a slowing of bank loan growth. The projected 8½% annual increase in bank lending to the subgroup of non-oil LDCs during 1983-85 is quite small in relation to past trends. Thus, the financing of balance-of-payments deficits and the rollover of outstanding debts could proceed fairly smoothly. Under these circumstances, it is even possible that the GDP growth rate of the non-OPEC LDCs could exceed the 5% annual rate that is assumed.

In contrast, under the other two scenarios, the much higher projected annual rates of increase in bank lending to the non-oil developing and small industrial countries shown in Table 3 for 1983-85 probably would not be forthcoming. In both of these cases, the response of the commercial banks probably would be more cautious relative to the task, given the prospects for large and persistent external imbalances and a further rapid growth in the foreign indebtedness of oil-importing countries. The growth in bank lending to these countries that follows from the base-case projections, and especially under the pessimistic scenario, would outstrip the expansion of bank capital and of domestic loan growth and would lead to an excessive concentration of risk in a handful of major borrowing countries.

There already is evidence that U.S. banks have adopted a more cautious stance toward international lending in recent years. Since 1976, American banks have curbed the growth of their total foreign assets to an average of 13.4% per annum — roughly the growth rate of their capital base. However, their lending to the group of twelve major non-oil LDCs, while proceeding at a much slower pace than in 1974-76, has nonetheless grown at a high rate of 17% per year. This has meant a further concentration of risk relative to bank capital in countries such as Argentina, Chile, Korea, the Philippines, and Thailand — though it is significant that the relative importance of the banks' largest exposure, Brazil, has remained unchanged.

Commercial banks in Canada, Japan, and Western Europe are in a different position. Relative to U.S. banks, they were latecomers to the recycling process. The international asset expansion of German, Swiss, and Dutch banks, for example, accelerated in 1976-77 and that of Japanese banks took place mostly during 1978-79. Consequently, since 1976 the cross-border claims of banks chartered in industrial countries other than the United States have been rising at an annual rate of nearly 33%, and their lending to the group of twelve major non-oil LDCs has grown by over

Table 4

International claims of commercial banks in major industrial countries[1]

Claims on:	Billions of dollars end-1976	end-1979	average annual % change
12 major non-oil LDCs			
U.S. banks[2]	24.4	39.3	17.2
Non-U.S. banks	16.8	48.3	42.2
10 small non-oil industrial countries			
U.S. banks[2]	10.8	15.6	13.0
Non-U.S. banks	22.7	59.7	38.0
All countries			
U.S. banks[2]	195.3	284.6	13.4
Non-U.S. banks	318.7	744.4	32.7

[1] Based on cross-border claims of banks reporting to the Bank for International Settlements Data for 1976 exclude information on international lending by banks in Austria, Denmark, and Ireland.

[2] U.S. offices and foreign branches of banks chartered in the United States.

40% per year (see Table 4). These high rates are substantially above the 25% average annual rise of the publicly reported capital base of the forty internationally most active non-U.S. banks since 1976. As a result, concern over capital adequacy and risk concentration is beginning to be voiced abroad by bankers and regulators alike, which may lead to a more cautious attitude toward international lending in the future.

A more realistic assumption for the longer run, therefore, is that the annual rate of growth of international lending by the major commercial banks will be limited to about 15%, with the growth of U.S. banks' lending somewhat below this figure and that of non-U.S. banks higher than this average. In that event, a substantial financing gap would emerge, implying that the amount of nonbank financing would have to rise rapidly to sustain the assumed 5% annual growth rate for the non-oil LDCs. In the base case, the annual financing gap of the twelve non-oil LDCs would increase from $2.5 billion in 1982 to $14 billion by 1985, averaging nearly $8 billion per year during the 1982-85 period. In the pessimistic scenario, however, the gap would rise to $70 billion in 1985. For the small industrial countries the financing gap would cumulate to only a modest $2.5 billion for the 1982-85 period under the base case, but would climb to $40 billion by 1985 in the pessimistic case and average $22 billion per annum for the 1982-85 period.

Given these circumstances, the oil-importing countries would face two options: to reduce their import and GDP growth rates substantially, or to find new non-bank sources of finance. If other sources were not forthcoming, the average annual growth rate of the twelve non-oil LDCs would have to fall to about 4% during 1982-85 in the base case and to only about 1% per annum in the pessimistic scenario. Such a reduction undoubtedly would trigger adverse social and political developments, which could force some countries to seek debt relief. However, this would not provide a long-term solution to the external payments constraints on their economic growth, since it would make it more difficult for them to obtain additional bank financing.

The role of OPEC

To mitigate the GDP growth cutbacks, therefore, it is important to increase nonbank sources of finance. One alternative channel of funding for the deficit countries is direct assistance by OPEC. Over the past six years, OPEC has provided bilateral assistance of about $33 billion (excluding military-related financing), which on average represents over 1% of the members' combined GNP — more than twice the average for the industrial countries. Most of these funds have been channeled to a small group of Moslem and very poor countries, rather than to the oil-importing countries that rely heavily on borrowings from financial markets. There are some indications, however, that OPEC is becoming more responsive to the financing needs of a broader group of countries. Private financial institutions in OPEC countries, especially those in the Gulf, are participating more frequently in syndicated Euro-loans. Also, the size of the OPEC Special Fund was recently increased to $4 billion, and a proposal has been made to further raise it to $20 billion. In addition, OPEC members are now more willing to provide financing for the oil purchases of developing countries. Nevertheless, it is unlikely that a sizable percentage

Table 5

Drawings on IMF facilities by selected groups of countries[1]

millions of dollars

	1974-79	*1980*	
	annual average	*Jan-July actual*	*Jan-July annual rate*
Non-OPEC LDCs			
Gross	1,931	1,907	3,269
Net[2]	1,172	867	1,486
12 major non-oil LDCs[3]			
Gross	792	1,261	2,162
Net[2]	204	1,008	1,728
10 small industrial countries[3]			
Gross	606	377	646
Net[2]	293	—89	—153

[1] Excludes Trust Fund loans
[2] Gross drawings less repayments
[3] See footnote to Table 1

of OPEC assistance will be channeled to the oil-importing countries that are major borrowers, or that such assistance will be significant in relation to those countries' needs.

The role of the IMF

These considerations lead to the issue of expanding the role that the International Monetary Fund plays. The IMF's role has been very modest. During 1974-79 the Fund provided an average of only $500 million net per year to the twelve non-oil LDCs and ten small industrial countries combined, or less than 3% of their combined current account deficit. As noted earlier, however, the pace of borrowing from the Fund has picked up this year (see Table 5).

Looking beyond this year, demands on the Fund's resources should be considerably greater than in the past, not only because of larger current account deficits but also because the share of IMF financing will be greater. Even a doubling of the IMF's share in the case of the twelve non-oil LDCs would imply that the Fund would fill only about one quarter of the projected 1982-85 financing gap. Therefore, some curtailment of their import and GDP growth rates would be necessary to reduce their current account deficits sufficiently to eliminate the financing gap.

Actual demands on the Fund's resources will hinge, in part, on the terms and conditions of IMF credit. In this regard, steps have been taken over the past few years to increase the access of member countries to the Fund's resources from 100% of quota under credit tranche drawings to a relatively open-ended formula that recently has allowed for drawings equivalent to nearly 600% of quota under a combination of existing facilities for some borrowing countries. The terms of IMF programs have been lengthened: Under the Extended Facility, drawings may take place over periods of up to three years and repayments may be made within four to eight years after each drawing. New guidelines have also been adopted to provide greater flexibility in the application of conditionality by the IMF staff.

Still, numerous countries with balance-of-payments difficulties are reluctant to approach the IMF. When they do so, it is usually to avail themselves of facilities with only mild conditionality. For instance, nearly half of all drawings from the IMF since the beginning of 1976 have entailed use of resources under the reserve tranche and the Compensatory Financing Facility. To ensure prompter and greater usage of the Fund's resources, therefore, it will be necessary to adapt the conditions attached to, and the size of, the various IMF facilities. But the IMF must provide external financing only in the context of inducing balance-of-payments adjustment. This financing should remain confined to the period required for external payments adjustment.

The adjustment that any single deficit country can achieve is dependent on the state of the world economy. When the international payments situation is characterized by sizable and persistent disequilibria it is unreasonable to expect the same speed and extent of individual country adjustment that is attainable under more auspicious global circumstances.The implication is that the Fund must be prepared to accept programs of current account adjustment that lead to a more than short-term use of its financial resources. And it also suggests that the IMF must show greater willingness to modify the targets it sets for particular countries when changing external circumstances invalidate the assumptions upon which adjustment programs are built.

It must be also recognized that fluctuations in import prices, much like swings in export prices, have become a major source of balance-of-payments difficulties. Countries experiencing export shortfalls largely attributable to circumstances beyond their control can avail themselves of the Fund's Compensatory Financing Facility. However, now that the oil facilities have expired there is no quick and relatively unconditional access to IMF assistance for countries facing sharply higher import costs. This is an asymmetry that could stand correction, possibly by turning the existing Compensatory Financing Facility into a more broadly defined terms-of-trade financing facility and raising its current ceiling above the present 100% of quota.

Finally, the IMF programs should encourage policies of adjustment for oil-importing nations that include longer-term, structural measures that improve the supply of energy resources and broaden the productive base of those countries. Until recently, the emphasis of IMF standby arrangements had been directed overwhelmingly at changing demand-side conditions rather than at improving supply-side conditions. Yet, in an era of global energy shortages, it is also important to encourage efforts to reduce dependence on imported oil, either through energy conservation or through stepped-up energy production. The Fund should give increased support to pricing, tax, and regulatory reforms aimed at discouraging the rapid growth of petroleum consumption and encouraging domestic production of energy resources in the context of stabilization programs.

Would these steps to increase access to the Fund strain its resources? At the moment, at least, the Fund is liquid. It currently has holdings of SDRs of over $1 billion, and its holdings of "usable" foreign currencies — currencies of countries designated by the IMF as having no balance-of-payments difficulties and strong reserve positions — exceed $20 billion. In addition, the Fund has unused lines of credit with some countries under the General Arrangements to Borrow (GAB) of about $8 billion, and another $7-$8 billion from the Supplementary Financing Facility (SFF). These sources add up to about $35 billion.

In practice, the actual amount of funds that the IMF could readily disburse, however, would be much smaller than this figure, which is really a theoretical maximum that is subject to sharp fluctuations. Under existing arrangements the amount of usable currencies that the Fund can lend may vary considerably depending on the balance-of-payments positions of the member countries. When a major industrial country draws from the IMF, the Fund's holdings of usable currencies decline not only by the amount of the drawing but also by the amount of the Fund's holdings of that country's currency (as well as its credit lines with that country) as long as the currency is designated as unusable by the IMF. In the case of the GAB, moreover, the IMF can only borrow in order to lend to the ten members of the GAB, rather than to the entire Fund membership. Furthermore, the available resources of the Fund can be affected if some countries repay their outstanding drawings on the Oil Facility by drawing on other resources of the Fund. Finally, there are also prudential considerations that make it inconceivable for the Fund to lend all of its usable currencies, or for a member such as the United States to permit all of the Fund's holdings of its currency to be drawn. As a consequence, the de facto amount of lendable resources available to the Fund is well below the theoretical maximum.

It is clear from this that potential demands on the IMF may well be in excess of its current resources. The principal means of augmenting the Fund's resources is through the 50% increase of quotas proposed in the Seventh Review of Quotas. When the quota increase is ratified by the member countries, the usable foreign currency holdings of the Fund probably will rise by about \$10-\$12 billion, while the IMF's holdings of SDRs will increase by about \$5-\$6 billion. However, it should be noted that the \$10 billion Supplementary Financing Facility (which may be fully committed by the spring of next year) was established to provide temporary "bridge" financing and will expire when the new IMF quota increase takes effect. Thus, the net gain of resources from the quota increase will be small.

In the past, the Fund has also been able to supplement its resources through special *ad hoc* arrangements to borrow from governments, such as the GAB, the First and Second Oil Facilities, and the Supplementary Financing Facility. While they have provided the Fund with some flexibility to respond to changing circumstances, it has become increasingly difficult to negotiate special borrowing arrangements involving many governments and parliaments. Recent efforts by the IMF to borrow \$8-\$10 billion per annum directly from the OPEC surplus countries, for example, have been hampered by political considerations.

In view of the difficulties that the Fund has encountered in expanding its resources through traditional channels, serious consideration should be given to the possibility of borrowing directly from private markets. If it could establish lines of credit with the commercial banks in the major financial centers and be able to draw on credit lines in the currencies it needs on short notice, the Fund would add flexibility in meeting the borrowing needs of the member countries.

Borrowing from private markets, however, would entail a number of hurdles. One set of issues has to do with the manner in which the markets would assess the Fund's ability to repay its obligations. Unlike the World Bank, the IMF does not have callable capital commitments (i.e., guarantee provisions); thus, assessments of the Fund's creditworthiness would be based largely on the holdings of gold, SDRs, and currencies. As noted earlier, its foreign currency holdings either represent claims on countries with weak external payments positions or need to be kept free for lending purposes that have first claim. The Fund's holdings of gold cannot be sold without an 85% majority vote. Ratings of the IMF's creditworthiness, therefore, ultimately might have to rest on judgments about the extent to which member countries are prepared to back the Fund.

A second set of issues relates to the fact that the IMF must be prepared to provide foreign exchange to a member country on very short notice and that the Fund's flexibility to lend or to hold currencies is circumscribed by regulations requiring that its holdings of a member's currency be related to the country's quota. For example, a borrowing of dollars by the IMF would temporarily increase the Fund's holdings of dollars and would have the same effect as a drawing by the United States. This could reduce the U.S. reserve position in the IMF and result in the imposition of charges on the United States. To avoid this situation, the Fund could negotiate standby lines of credit in many currencies with commercial banks — which should not pose any special problems for the banks involved.

The stipulation that IMF borrowings be denominated in SDRs may pose an impediment, although this has been softened now that the number of currencies in the SDR has been reduced from sixteen to only the five major currencies. This should lessen the chance of complications that may arise when a currency in the basket becomes inconvertible or when markets for a currency become very thin — factors that have hindered widespread acceptance of the SDR in the past.

In addition to these operational matters, there are also a number of legal considerations. IMF bond flotations in the United States, for example, would presently be subject to strict U.S. securities laws unless a specific statutory exemption were granted similar to that which applies to securities issued by the World Bank and the regional multilateral development banks. IMF borrowings from U.S. commercial banks would be constrained by legal lending limits to a single entity. This could help keep IMF borrowings from the leading international banks from rising much above $5 billion.

The IMF should be in a position to sustain net lending of at least $10 billion per annum during the next few years. IMF borrowings from private markets, assuming they are feasible, should therefore be regarded only as a supplement to traditional sources of Fund financing rather than as a competing source. For these reasons, it is vital to rebuild political support for the Fund to ensure continued and expanded access to its traditional sources of financing.

In view of the problems the IMF is facing on both the lending and borrowing sides, the time has come to focus attention on the fundamental role of the Fund as a financial intermediary, and to assess whether it can be effective in dealing with the financial problems of the 1980s and 1990s. The Bretton Woods charter, now 35 years old, was formulated to tackle the problems of postwar reconstruction and to provide balance-of-payments financing to countries on a case-by-case basis. Yet the principal problems confronting the international financial system today and in the future may be ones of large, recurring payments imbalances that may extend over long periods of time and affect many countries. If progress is to be achieved, it is important that the leading countries, and especially the United States, develop a coherent set of objectives that will make the IMF better equipped to deal with the practical problems ahead.

Statistical appendix

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Information herein is from sources considered to be reliable but is furnished without responsibility on the part of Morgan Guaranty Trust Company.

Effective exchange rates

Index numbers, March 1973=100. The index of the effective exchange rate for a currency is a measure of that currency's trade-weighted average appreciation or depreciation vis-à-vis the currencies of 15 other major countries. The exchange rates used in the construction of this index are the averages of daily noon spot exchange rates in New York for months and for weeks ending on dates shown. The trade weights used are based on 1976 bilateral trade in manufactures.

	United States	Canada	Japan	United Kingdom	Germany	France	Italy	Belgium	Netherlands	Switzerland	Austria	Denmark	Norway	Sweden	Australia	Spain
pre-June 1970 parities	116.5	94.9	79.3	116.2	91.6	97.5	110.9	95.9	98.2	88.3	97.8	97.9	98.1	102.2	92.2	98.4
Smithsonian central rates	107.0	101.3	88.7	116.0	95.4	96.1	108.3	97.0	99.1	91.6	98 0	96.0	96.3	100.5	91.7	98.1
1979																
September	97.6	84.2	112.3	74.5	137.1	89.4	55.4	110.5	118.2	168.8	119.4	99.1	101.6	88.3	74.3	76.6
October	98.9	83.7	108.8	73.0	138.3	89.9	54.6	110.9	118.0	167.7	120.5	96.8	102.8	88.5	74.6	77.0
November	100.2	83.6	102.4	72.7	139.7	90.7	54.4	110.8	118.3	166.0	121.3	98.5	102.0	88.3	74.7	76.7
December	98.7	84.0	103.5	73.9	140.2	91.2	54.4	110.4	119.4	167.5	121.5	94.6	101.3	88.1	74.2	75.3
1980																
January	97.9	84.3	104.2	75.6	139.9	91.0	54.4	110.4	119.4	166.6	121.6	93.5	101.8	87.9	73.9	75.2
February	98.4	85.0	101.7	77.2	139.3	90.5	54.6	110.0	119.1	163.4	121.7	92.9	103.2	88.0	74.2	75.3
March	101.3	84.3	101.9	77.4	137.8	90.2	53.9	109.6	118.7	159.1	121.4	91.7	104.2	88.2	75.1	75.5
April	102.3	83.4	101.6	78.2	137.1	90.3	53.4	109.9	118.1	161.1	121.0	91.2	104.6	88.4	75.5	73.3
May	98.4	83.6	109.4	78.6	138.1	90.3	53.3	110.6	118.2	163.7	121.4	91.5	103.5	88.1	74.8	71.5
June	96.2	84.9	113.8	78.7	137.9	90.6	53.1	110.8	118.6	164.3	121.7	92.0	103.0	87.8	74.8	71.4
July	96.0	84.8	111.7	79.3	138.2	91.1	52.7	110.9	119.1	165.5	122.2	92.5	102.8	87.8	75.0	70.0
August	97.2	84.5	111.0	80.5	137.2	90.7	52.7	110.4	119.0	163.9	122.0	91.8	103.3	88.1	75.6	69.6
1	97.2	84.2	109.3	79.4	137.5	91.0	53.2	110.0	119.1	164.0	122.5	92.4	103.0	88.2	75.7	70.0
8	97.1	84.6	109.9	79.9	137.3	90.9	53.0	110.8	119.0	164.0	122.3	92.0	103.0	88.1	75.5	69.8
15	97.1	84.4	110.6	80.4	137.2	90.8	52.8	110.6	119.1	164.2	122.1	92.0	103.1	88.1	75.7	69.5
22	97.5	84.3	110.9	80.7	137.0	90.7	52.7	110.2	119.1	163.6	121.8	91.6	103.5	88.2	75.8	69.5
29	96.8	84.5	113.1	81.2	137.1	90.4	52.4	109.9	118.9	163.9	121.8	91.5	103.6	88.1	75.6	69.4
September 5	96.2	84.3	114.2	81.6	137.3	90.4	52.4	110.0	119.1	164.7	121.9	91.4	103.3	87.9	75.4	68.8
12	96.2	84.0	115.1	81.3	137.2	90.4	52.5	110.1	118.9	165.1	122.0	91.6	103.4	88.0	75.4	68.4
19	96.2	83.7	117.2	80.8	137.0	90.4	52.5	110.0	119.1	164.9	122.0	91.4	103.2	88.2	75.2	68.3

Real effective exchange rates

Index numbers, March 1973=100. The index of the real effective exchange rate is the index of the effective exchange rate adjusted for inflation differentials which are measured by wholesale prices of nonfood manufactures. Exchange rates and trade weights used in the construction of this index are the same as those used for effective exchange rate indices. Annual figures are averages of months.

	United States	Canada	Japan	United Kingdom	Germany	France	Italy	Belgium	Netherlands	Switzerland	Austria	Denmark	Norway	Sweden	Australia	Spain
1976	100.3	106.7	88.3	96.6	101.2	100.0	92.6	97.9	101.8	110.9	106.1	96.2	99.1	109.1	101.8	105.1
1977	100.0	99.6	93.5	101.6	102.5	96.1	95.6	99.8	103.8	105.2	109.2	97.3	99.8	105.1	91.9	100.6
1978	95.4	92.9	107.2	106.4	103.3	96.8	93.8	99.6	103.7	121.7	109.3	103.5	95.6	96.6	87.3	97.0
1979	95.5	92.9	96.1	118.6	104.3	98.7	93.5	97.1	100.2	115.4	107.9	101.4	90.4	99.2	86.0	109.1
1979																
September	94.6	93.2	94.6	123.3	103.8	98.8	94.6	95.8	99.0	115.3	108.1	103.8	88.9	100.2	86.1	111.6
October	96.8	92.7	90.9	121.4	104.5	99.0	93.9	96.1	98.3	113.3	108.9	103.3	89.8	100.1	86.2	110.9
November	98.2	92.3	85.3	121.3	105.7	99.8	93.8	96.1	98.0	112.4	109.5	99.8	89.5	100.9	86.7	109.8
December	96.5	92.9	86.9	123.3	105.9	100.4	95.1	95.4	98.5	112.8	109.1	94.8	89.1	100.5	86.2	107.4
1980																
January	95.5	94.8	87.0	128.3	104.6	99.3	96.1	94.6	99.8	110.4	109.2	92.8	89.3	100.5	85.3	112.0
February	96.6	94.5	85.3	131.6	103.5	99.4	96.8	93.8	99.1	107.9	109.7	91.4	91.4	101.3	86.8	112.0
March	100.1	92.1	86.4	132.7	102.1	99.8	95.4	92.7	98.4	104.2	106.9	90.2	92.9	101.7	87.4	111.6
April	101.7	90.4	86.9	134.1	101.3	100.3	94.9	92.6	98.3	104.9	107.9	90.2	92.5	101.1	86.9	108.2
May	97.2	90.8	94.0	135.5	101.7	100.5	95.5	92.8	99.0	106.0	108.6	90.8	91.1	100.7	85.8	105.5
June	95.3	91.8	97.7	136.4	101.0	100.8	95.4	92.5	100.0	105.9	108.9	90.6	90.3	101.7	85.7	106.3
July	95.5	91.7	95.0	137.6	100.3	102.4	94.3	92.0	101.0	107.1	109.3	92.0	90.5	102.0	86.4	104.1
August	96.5	90.8	95.7	139.1	99.5	102.0	95.3	91.2	101.3	105.0	108.9	91.1	90.6	102.8	86.8	103.4

Euro-currency market size

based on foreign-currency liabilities and claims of banks in major European countries, the Bahamas, Bahrain, Cayman Islands, Panama, Canada, Japan, Hong Kong, and Singapore billions of dollars (rounded to nearest $5 billion), at end of period

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	
									Dec	Mar[r]	Jun[p]
Estimated size											
Gross	145	200	305	375	460	565	695	895	1155	1200	1270
Liabilities to nonbanks	30	35	55	75	80	100	125	170	230	250	n.a.
Liabilities to central banks	15	25	40	60	70	85	110	120	155	155	n.a.
Liabilities to other banks[a]	100	140	210	240	310	380	460	605	770	795	n.a.
Net	85	110	160	215	250	310	380	485	600	625	650
Claims on nonbanks	35	45	65	100	115	150	195	245	295	305	n.a.
Claims on central banks and on banks outside market area[b]	35	45	75	95	115	135	155	195	245	260	n.a.
Conversions of Euro funds into domestic currencies by banks in market area[c]	15	20	20	20	20	25	30	45	60	60	n.a.
Euro-dollars as % of gross liabilities in all Euro-currencies	76	78	73	77	78	79	76	74	72	74	n.a.

[a] includes unallocated liabilities
[b] includes unallocated claims
[c] in European market area only
[r] revised
[p] preliminary

Euro-currency deposit rates

prime banks' bid rates in London, at or near end of month

	1977	1978	1979	1980							
	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
Euro-dollar:											
overnight	7.12	10.62	14.00	13.50	13.75	19.25	12.25	9.37	9.50	9.12	10.50
7-day fixed	6.31	10.62	14.00	13.62	14.62	19.37	12.75	9.50	9.50	9.25	10.62
one month	6.87	11.00	14.37	14.00	16.12	19.25	14.25	9.87	9.50	9.50	11.19
three months	7.19	11.69	14.44	14.37	16.94	19.69	14.37	10.12	9.75	9.81	12.25
six months	7.50	12.31	14.44	14.37	17.00	19.56	13.69	10.25	9.94	10.06	12.50
twelve months	7.67	12.00	12.87	13.81	16.37	18.00	12.75	10.25	9.87	10.19	12.50
Euro-mark:											
one month	2.19	3.19	8.50	8.25	8.75	8.94	9.06	9.37	9.50	8.69	8.62
three months	2.50	3.31	8.56	8.37	9.31	9.69	9.06	9.37	9.37	8.25	8.50
six months	2.81	3.69	8.56	8.44	9.37	10.06	9.00	9.00	8.81	7.81	8.31
twelve months	3.06	3.81	8.12	8.56	9.44	10.00	8.69	8.50	8.19	7.75	8.12
Euro-Swiss franc:											
one month	1.31	—.06	5.19	4.75	3.75	5.87	5.25	5.56	5.62	5.06	6.00
three months	1.37	0.00	5.75	5.37	5.50	7.12	6.12	5.37	5.69	5.12	5.87
six months	1.87	0.12	5.87	5.62	5.75	7.50	6.25	5.37	5.69	5.25	5.75
twelve months	2.25	0.62	5.56	5.62	5.87	7.00	5.62	5.25	5.12	5.00	5.50
Euro-sterling:											
one month	6.50	12.00	16.75	18.50	17.75	18.00	17.25	17.00	17.37	16.87	16.75
three months	6.62	12.62	16.75	18.00	18.50	18.25	17.25	16.75	16.75	15.62	16.62
six months	7.12	13.25	16.75	17.00	18.37	18.37	16.37	16.12	15.25	14.25	16.25
twelve months	7.37	13.00	15.25	16.00	17.87	17.50	15.37	14.75	14.00	13.25	15.12
Euro-French franc:											
one month	12.25	10.50	13.87	12.12	13.12	13.37	12.50	12.31	12.25	12.37	12.00
three months	13.25	9.87	14.00	12.81	13.87	14.12	12.75	12.50	12.25	12.12	12.12
six months	14.00	9.87	14.12	13.37	14.62	14.50	12.87	12.62	12.25	12.00	12.37
twelve months	13.25	10.25	13.75	13.56	14.62	14.87	13.00	12.75	12.25	11.94	12.62
Euro-yen:											
one month	0.62	—.69	7.62	7.75	9.12	15.00	11.50	12.62	13.00	12.87	11.62
three months	1.81	0.62	8.31	8.25	10.12	15.50	12.50	12.25	12.25	12.25	11.62
six months	2.75	1.87	8.62	8.25	10.37	15.00	11.37	11.37	11.12	11.37	11.12
twelve months	3.25	2.19	7.94	8.25	10.25	13.62	10.37	10.25	9.37	9.75	9.75

Euro-currency bank credits

publicly-cnnounced in period, in millions of dollars

	1977	*1978*	*1979*	*1980*			*Jan-Sep*	
				Jul[r]	*Aug*[r]	*Sep*[p]	*1980*	*1979*
Industrial countries	**17 205**	**28 952**	**27 248**	**3 065**	**2 510**	**1 328**	**21 765**	**16 534**
Australia	360	212	941	—	—	137	740	187
Canada	3 292	5 705	1 845	250	200	—	657	595
Denmark	868	2 242	1 205	44	283	—	1 339	1 115
Finland	314	550	92	90	—	—	1 040	80
France	2 325	1 915	2 955	750	200	—	1 562	1 645
Greece	204	509	1 010	125	76	100	960	640
Ireland	440	616	687	—	111	—	111	687
Italy	1 024	2 485	3 708	836	760	20	4 138	2 805
Norway	182	1 517	935	80	33	—	411	788
Spain	1 973	2 426	4 184	370	50	81	2 798	2 867
Sweden	1 446	1 872	1 263	100	25	—	1 208	323
United Kingdom	1 992	3 899	795	—	200	—	1 098	678
United States	826	1 206	2 348	112	127	640	1 774	1 238
Other[a]	1 959	3 798	5 280	308	445	350	3 929	2 886
Developing countries	**20 976**	**37 300**	**47 964**	**1 773**	**3 466**	**2 069**	**23 758**	**36 872**
Non-OPEC countries	13 494	26 902	35 411	1 430	2 614	1 344	14 928	26 690
Argentina	849	1 461	2 965	179	250	45	1 666	2 102
Brazil	2 814	5 634	6 278	360	582	157	2 379	4 201
Chile	591	1 045	867	102	95	158	739	482
Korea	1 265	2 651	3 258	15	15	42	1 176	2 511
Malaysia	212	858	1 168	—	—	—	—	118
Mexico	2 727	7 250	8 243	425	839	300	3 742	7 031
Morocco	797	605	500	—	—	—	250	500
Peru	189	—	596	13	52	—	335	478
Philippines	698	2 073	2 067	117	10	165	641	1 286
Taiwan	524	255	1 063	—	—	180	244	971
Other[b]	2 828	5 070	8 406	219	771	297	3 756	7 010
OPEC countries	7 481	10 398	12 553	343	852	725	8 830	10 182
Algeria	723	2 576	1 906	—	—	—	40	1 631
Indonesia	817	1 118	1 061	—	30	—	860	1 032
Nigeria	1 000	825	1 373	41	54	75	613	1 096
United Arab Emirates	1 086	726	401	—	—	—	60	401
Venezuela	1 666	2 054	6 830	252	504	650	5 984	5 070
Other	2 189	3 099	1 373	50	264	—	1 273	952
Communist countries	**3 394**	**3 767**	**7 325**	**397**	**734**	**121**	**2 183**	**6 560**
China	—	—	3 395	72	67	—	139	3 275
East Germany	832	642	796	—	—	121	197	636
Hungary	300	700	260	—	—	—	250	260
Poland	19	374	849	325	667	—	1 022	762
Other[c]	2 243	2 051	2 025	—	—	—	575	1 627
International organizations	**190**	**160**	**275**	—	—	—	**409**	**275**
TOTAL	**41 765**	**70 179**	**82 812**	**5 235**	**6 710**	**3 518**	**48 115**	**60 241**

[a] includes multi-national organizations [b] includes regional development organizations [c] includes COMECON institutions [p] preliminary
[r] revised

International bond yields

long-term issues, at or near end of month

	1977	*1978*	*1979*	*1980*							
	Dec	*Dec*	*Dec*	*Jan*	*Feb*	*Mar*	*Apr*	*May*	*Jun*	*Jul*	*Aug*
U.S. companies:											
U.S. dollar	7.95	8.55	10.13	10.35	11.27	11.61	10.98	10.39	9.83	9.99	10.60
Swiss franc	5.31	5.70	6.61	6.84	7.27	7.32	7.19	7.23	7.29	7.28	7.30
European companies:											
U.S. dollar	8.42	9.21	10.93	11.61	12.95	13.07	11.94	11.07	10.53	10.72	11.47
German mark	6.80	6.84	7.55	7.74	8.70	9.33	8.36	7.84	7.76	7.63	7.85
Governments:											
U.S. dollar	8.42	9.12	10.66	10.94	12.07	12.17	11.67	11.06	10.47	10.50	10.90

New international bond issues

new issues in period, in millions of dollars

	1977	*1978*	*1979*	*1980*			*Jan-Sep*	
				Jul	*Augr*	*Sepp*	*1980*	*1979*
By type:								
Euro-bonds, total	**17 771**	**14 125**	**18 726**	**2 362**	**1 121**	**1 321**	**17 229**	**15 610**
by category of borrower								
U.S. companies	1 130	1 122	2 872	233	150	303	2 676	2 367
Foreign companies	7 347	4 540	7 183	913	626	436	6 255	5 679
State enterprises	4 667	3 291	4 524	599	210	145	4 213	4 045
Governments	2 936	3 643	2 433	398	110	337	2 549	2 273
International organizations	1 691	1 529	1 714	219	25	100	1 536	1 246
by currency of denomination								
U.S. dollar	11 627	7 290	12 565	1 256	559	833	11 617	10 152
German mark	4 131	5 251	3 626	494	319	179	2 761	3 154
Dutch guilder	452	394	531	163	137	52	802	518
Canadian dollar	655	—	425	52	43	—	257	425
European unit of account	28	165	253	—	—	12	37	145
Other	878	1 025	1 326	397	63	245	1 755	1 216
Foreign bonds outside the United States, total	**8 777**	**14 359**	**17 749**	**1 401**	**1 094**	**1 150**	**10 594**	**12 983**
by category of borrower								
U.S. companies	40	245	217	—	—	—	219	217
Foreign companies	1 421	2 110	3 463	259	210	129	1 886	2 902
State enterprises	2 427	3 163	3 284	331	150	232	1 925	2 076
Governments	2 043	5 771	7 663	142	276	524	3 603	5 784
International organizations	2 846	3 070	3 122	669	448	265	2 961	2 004
by currency of denomination								
German mark	2 181	3 789	5 379	526	443	364	4 069	2 958
Swiss franc	4 970	5 698	9 777	839	483	577	5 328	8 371
Dutch guilder	211	385	75	—	—	—	107	—
Japanese yen	1 271	3 826	1 833	—	—	209	711	1 262
Other	144	671	685	36	168	—	379	392
Foreign bonds in the United States, total	**7 428**	**5 795**	**4 515**	**160**	—	**75**	**1 804**	**3 902**
by category of borrower								
Canadian entities	3 022	3 142	2 193	—	—	75	945	1 978
International organizations	1 917	459	1 100	100	—	—	350	975
Other	2 489	2 194	1 222	60	—	—	509	949
By country of borrower:								
Industrial countries	**23 851**	**24 964**	**31 886**	**2 758**	**1 687**	**1 776**	**22 981**	**25 528**
Australia	1 074	1 218	593	—	94	111	435	426
Austria	1 384	1 027	1 218	302	139	133	1 376	859
Canada	5 277	4 764	4 197	110	43	75	2 287	3 895
Denmark	796	1 018	752	84	183	89	956	495
Finland	358	952	699	—	48	—	365	539
France	1 945	1 286	2 106	156	242	140	1 782	1 652
Japan	1 979	3 467	5 775	491	294	345	3 323	4 712
Netherlands	682	251	832	210	137	—	1 167	667
New Zealand	567	744	553	207	—	—	268	450
Norway	1 889	2 751	1 955	—	—	91	669	1 626
Sweden	1 574	876	1 530	202	110	304	2 362	1 247
United Kingdom	1 915	1 365	1 181	275	27	93	1 340	831
United States	1 353	2 973	6 767	233	150	303	4 068	5 141
Developing countries	**3 421**	**4 227**	**3 085**	**177**	**40**	**405**	**1 734**	**2 667**
Non-OPEC countries	2 676	2 684	2 667	177	40	163	1 272	2 292
Brazil	732	843	930	30	—	56	349	692
Mexico	1 282	568	363	—	—	25	314	338
Philippines	129	170	175	—	—	—	—	175
OPEC countries	745	1 543	418	—	—	242	462	375
Algeria	166	721	208	—	—	—	—	208
Venezuela	438	588	55	—	—	197	317	55
Communist countries	**248**	**30**	**75**	—	**15**	—	**65**	**75**
Hungary	174	—	—	—	15	—	65	—
International organizations	**6 454**	**5 058**	**5 936**	**988**	**473**	**365**	**4 847**	**4 225**
TOTAL	**33 976**	**34 279**	**40 982**	**3 923**	**2 215**	**2 546**	**29 627**	**32 495**

Central bank discount rates

	1976	1977	1978	1979		1980		Current	
	end Dec	end Dec	end Dec	end Sep	end Dec	end Mar	end Jun	Sep 24 1980	effective since
United States	5.25	6.00	9.50	11.00	12.00	16.00[a]	11.00	10.00	Jul 28, 80
Canada	8.50	7.50	10.75	12.25	14.00	15.69	10.63	11.02	Sep 19, 80
Japan	6.50	4.25	3.50	5.25	6.25	9.00	9.00	8.25	Aug 20, 80
United Kingdom	14.25	7.00	12.50	14.00	17.00	17.00	17.00	16.00	Jul 3, 80
Belgium	9.00	9.00	6.00	9.00	10.50	14.00	13.00	13.00	Jun 25, 80
France	10.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	Aug 31, 77
Germany	3.50	3.00	3.00	5.00	6.00	7.00	7.50	7.50	May 2, 80
Italy	15.00	11.50	10.50	10.50	15.00	15.00	15.00	15.00	Dec 6, 79
Netherlands	6.00	4.50	6.50	8.00	9.50	9.50	9.50	8.50	Sep 22, 80
Austria	4.00	5.50	4.50	3.75	3.75	6.75	6.75	6.75	Mar 21, 80
Denmark	10.00	9.00	8.00	11.00	11.00	13.00	13.00	12.00	Sep 19, 80
Finland	9.25	8.25	7.25	7.25	8.50	9.25	9.25	9.25	Feb 1, 80
Ireland	14.75	6.75	11.85	13.70	16.40	16.85	16.85	13.50	Sep 5, 80
Norway	6.00	6.00	7.00	7.00	9.00	9.00	9.00	9.00	Nov 30, 79
Spain	7.00	8.00	8.00	8.00	8.00	8.00	8.00	8.00	Jul 26, 77
Sweden	8.00	8.00	6.50	8.00	9.00	10.00	10.00	10.00	Jan 18, 80
Switzerland	2.00	1.50	1.00	1.00	2.00	3.00	3.00	3.00	Feb 28, 80
Argentina	47.00	165.27	108.19	107.04	89.90	74.98	85.86	71.96	Aug 27, 80
Brazil	28.00	28.00	33.00	33.00	33.00	33.00	33.00	33.00	Nov, 78
Korea	13.00	14.00	14.50	14.50	14.50	20.50	19.50	19.50	Jun 5, 80
New Zealand	8.50	10.00	11.00	13.00	14.00	14.00	14.00	14.00	Dec 20, 79
Philippines	6.00	6.00	4.00	4.00	4.00	4.00	4.00	4.00	May 19, 78
Singapore	4.00	3.50	4.50	5.75	6.75	8.50	8.50	8.50	Jun 20, 80
South Africa	9.00	9.00	8.50	7.00	7.00	7.00	7.00	7.00	Aug 13, 79
Venezuela	7.00	7.00	7.50	9.50	11.00	12.00	10.00	10.00	Jun 26, 80

[a]: applicable to large banks; 13% for other banks

Day-to-day money rates

monthly averages

	1977	1978	1979	1980							
	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
United States	6.56	10.03	13.78	13.82	14.13	17.19	17.61	10.98	9.47	9.03	9.61
Canada	6.84	9.44	13.83	13.14	12.74	12.13	15.58	13.68	11.37	10.20	9.86
Japan	5.01	4.57	8.02	8.12	8.76	10.73	12.21	12.56	12.62	12.68	12.11
Australia	9.96	8.40	7.84	7.95	8.22	9.26	8.99	10.74	10.34	10.91	9.63
United Kingdom	4.81	10.00	14.87	14.25	16.12	15.00	16.06	15.90	14.06	15.06	14.87
Belgium	7.48	6.73	10.65	11.72	10.18	12.64	14.94	13.78	12.43	11.87	10.01
France	9.30	6.67	12.17	11.99	12.17	12.96	12.40	12.61	12.43	12.04	11.32
Germany	3.24	3.61	9.15	8.25	8.12	8.65	9.06	9.80	10.04	9.81	8.95
Italy	11.37	11.00	16.00	16.50	16.60	16.80	16.62	16.75	16.87	16.87	16.87
Netherlands	5.27	10.00	15.67	11.42	11.01	9.35	10.46	10.80	11.01	10.34	10.11
Austria	9.25	5.37	8.50	8.75	9.00	10.25	9.87	10.50	10.50	10.75	10.25
Finland	22.99	9.29	13.53	12.70	11.14	11.97	12.36	12.49	12.50	12.50	12.50
Ireland	8.00	12.12	16.88	24.00	16.88	24.00	17.62	17.38	17.38	16.81	13.75
Spain	7.22	16.75	9.61	11.18	11.96	15.25	14.76	17.81	14.22	12.71	12.57
Sweden	8.91	6.26	11.99	10.71	12.31	11.32	10.74	12.07	12.74	11.75	12.90
Switzerland	0.85	0.00	1.25	1.50	1.25	1.75	2.75	4.00	3.75	2.50	6.50
Argentina	n.a.	n.a.	78.22	64.90	61.14	56.92	56.66	58.14	64.92	83.39	52.89
Brazil	28.44	35.64	32.28	27.12	27.48	36.24	17.88	20.52	25.56	30.84	31.80
Hong Kong	4.87	9.67	14.19	14.50	15.75	13.87	13.62	12.37	8.00	7.25	8.75
Korea	14.40	15.00	15.00	19.20	19.20	19.20	19.20	19.20	19.20	19.20	19.20
Philippines	14.44	13.22	16.25	11.41	12.21	14.09	15.45	13.24	11.33	10.44	6.47
Singapore	3.59	4.98	10.17	10.13	9.59	9.55	10.47	11.19	9.42	9.15	8.97
South Africa	7.65	7.11	3.81	3.94	4.01	3.94	4.06	4.23	4.37	4.26	4.15
Euro-dollars	6.94	10.80	14.41	13.77	14.87	16.13	16.90	9.95	9.58	9.13	9.86

Treasury bill rates

bond-equivalent yields, at or near end of month

	1977	1978	1979	1980							
	Dec	*Dec*	*Dec*	*Jan*	*Feb*	*Mar*	*Apr*	*May*	*Jun*	*Jul*	*Aug*
United States	6.33	9.42	12.39	12.96	14.92	15.85	10.29	8.05	7.90	9.12	10.70
Canada	7.17	10.46	13.66	13.50	13.55	15.24	15.15	11.58	10.24	10.06	10.49
Japan	4.15	3.39	5.68	5.68	5.68	5.68	5.68	6.82	6.82	6.82	6.82
Australia	8.35	8.35	9.31	9.33	9.52	10.77	11.12	10.83	10.79	10.64	10.53
United Kingdom	6.42	12.01	16.45	16.93	16.71	16.95	16.73	16.75	16.29	14.69	15.[illegible]0
Belgium	9.25	9.25	14.40	14.40	15.00	17.50	17.00	15.50	13.75	12.75	12.35
Ireland	6.74	11.83	16.37	16.08	16.45	16.76	16.88	16.69	16.57	16.46	13.47
Italy	12.81	12.81	15.62	13.17	15.62	15.87	16.12	15.75	16.12	15.48	15.42
Netherlands	6.00	9.50	12.75	10.75	10.50	10.75	10.25	10.87	10.37	9.87	10.25
Sweden	9.21	5.84	9.74	10.79	10.79	10.78	10.78	12.89	12.89	12.84	12.84
Argentina	109.06	82.55	71.04	63.77	61.83	59.76	58.55	64.01	70.26	70.43	48.60
Brazil	38.08	41.21	27.84	24.62	23.85	25.90	27.33	24.62	33.84	39.14	42.66
Korea	16.88	17.01	19.53	22.01	22.01	22.01	22.01	22.01	22.01	22.01	22.01
Mexico	n.a.	12.75	17.89	18.71	19.30	21.38	22.33	22.34	21.55	n.a.	n.a.
New Zealand	7.50	10.50	11.25	11.25	11.25	11.25	11.25	11.25	11.25	11.25	11.25
Philippines	10.04	12.08	12.63	12.56	12.33	12.31	12.31	12.31	12.46	12.54	12.66
Singapore	3.17	4.01	6.18	6.77	6.74	6.92	7.21	7.10	6.85	6.79	6.89
South Africa	8.17	7.61	4.30	4.29	4.38	4.39	4.47	4.78	4.72	4.47	4.64

Representative money-market rates

bond-equivalent yields on major short-term (mostly 3-4 month) money-market instruments, other than Treasury bills, at or near end of month

	1977	1978	1979	1980							
	Dec	*Dec*	*Dec*	*Jan*	*Feb*	*Mar*	*Apr*	*May*	*Jun*	*Jul*	*Aug*
United States	6.84	10.57	13.70	13.49	15.45	18.44	13.70	7.90	8.03	8.82	10.91
Canada	7.25	10.62	14.15	13.80	13.75	16.00	15.40	11.75	11.50	10.60	10.75
Japan	5.89	4.64	8.01	8.02	9.86	12.68	12.12	12.53	10.87	11.54	10.95
Australia	9.75	9.10	10.30	10.30	10.40	11.75	14.00	13.50	13.00	12.50	12.40
United Kingdom	6.50	12.50	17.00	17.75	18.31	18.12	17.12	17.00	17.00	14.87	16.69
Belgium	9.50	9.25	14.45	14.50	15.00	17.50	17.00	15.75	14.00	13.00	12.60
France	9.19	6.44	12.62	12.19	13.62	13.69	12.56	12.37	12.25	11.44	11.62
Germany	3.60	3.70	8.70	8.85	9.50	9.80	9.97	10.20	9.95	9.30	8.90
Ireland	6.75	13.00	18.12	18.00	18.37	19.12	18.75	17.88	17.50	16.75	14.50
Italy	11.75	11.37	17.12	17.75	17.62	17.87	16.50	17.12	17.25	17.25	17.25
Netherlands	6.25	10.50	13.00	11.37	12.87	11.25	10.37	11.25	10.62	9.37	10.75
Spain	12.06	22.80	13.20	13.40	13.40	15.50	17.50	18.70	16.90	15.00	14.60
Switzerland	2.02	0.50	6.12	6.00	5.25	7.37	6.37	5.62	5.87	5.25	6.12
Hong Kong	5.73	11.82	14.37	15.37	15.50	15.87	14.75	12.12	8.75	7.94	9.25
Korea	16.88	17.01	19.53	22.01	22.01	22.01	22.01	22.01	22.01	22.01	22.01
New Zealand	11.87	12.00	16.00	16.20	15.75	16.00	15.25	14.25	13.50	13.25	13.40
Philippines	11.96	11.48	10.41	10.33	9.99	11.49	11.79	11.06	12.22	9.96	10.92
Singapore	4.81	7.38	10.12	10.12	10.25	11.50	11.31	10.75	9.75	9.50	9.50
South Africa	9.00	7.85	4.72	4.61	4.93	5.03	5.55	5.34	5.24	4.93	4.93

Commercial bank deposit rates

at or near end of month

	1977	1978	1979	1980							
	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
United States	6.80	10.90	13.55	13.35	15.55	18.50	12.95	8.70	8.90	8.90	11.55
Canada	7.25	10.45	14.05	13.70	13.75	15.50	15.35	11.50	11.00	10.50	10.75
Japan	3.25	2.50	4.00	4.00	4.00	5.00	6.00	6.00	6.00	6.00	6.00
Australia	9.50	8.50	10.25	10.40	10.50	12.35	13.00	13.15	13.33	12.41	12.03
United Kingdom	6.37	12.25	16.81	17.50	17.75	18.12	17.16	17.00	16.88	15.87	16.75
Belgium	9.50	9.87	14.50	14.50	15.12	17.50	15.00	15.75	14.00	12.50	12.63
France	9.00	6.50	12.50	12.25	12.75	12.50	12.50	12.25	11.75	11.25	11.62
Germany	3.40	3.50	7.75	8.00	8.50	9.25	9.25	9.25	9.00	8.60	8.40
Italy	17.00	12.50	13.25	13.25	13.25	13.20	13.25	13.25	13.25	13.25	13.25
Netherlands	7.00	11.62	13.50	12.00	13.00	11.75	10.75	11.50	10.75	9.50	10.62
Austria	9.00	6.75	8.50	8.75	8.75	9.75	9.87	10.00	10.37	10.75	11.37
Denmark	8.00	7.00	10.00	10.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
Finland	4.25	3.25	4.25	4.25	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Ireland	6.87	12.75	17.87	18.00	18.00	19.12	18.75	17.62	17.37	16.25	14.00
Norway	4.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00
Spain	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50	4.50
Sweden	7.75	6.25	8.75	9.75	9.75	9.75	9.75	9.75	9.75	9.75	9.75
Switzerland	1.12	0.12	4.75	4.75	4.75	6.75	5.50	4.75	5.25	4.75	5.00
Argentina	n.a.	86.63	72.64	66.80	60.71	55.72	54.26	59.01	68.62	70.57	53.05
Brazil	39.60	46.80	45.00	45.48	43.68	44.76	44.76	43.68	43.80	45.24	47.40
Hong Kong	1.75	4.50	9.25	9.25	9.25	10.50	10.50	9.00	6.50	6.00	6.00
Korea	13.20	15.00	15.00	19.20	19.20	19.20	19.20	19.20	19.20	19.20	19.20
Mexico	11.00	12.00	16.75	17.35	18.15	20.71	22.03	21.11	19.13	n.a.	n.a.
New Zealand	11.00	12.00	15.90	15.80	14.25	14.00	14.00	13.75	13.25	13.25	13.30
Philippines	8.50	8.50	10.50	10.50	10.50	10.50	10.50	10.50	10.50	10.50	14.00
Singapore	5.31	7.31	10.31	10.38	10.75	11.81	10.75	10.13	9.06	8.69	9.38
South Africa	8.70	7.30	4.82	4.40	4.75	4.68	5.35	5.22	5.15	4.75	4.77
Venezuela	7.00	7.25	15.00	15.00	15.00	17.00	17.00	13.00	12.00	12.00	12.00

Commercial bank lending rates to prime borrowers

at or near end of month

	1977	1978	1979	1980							
	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
United States	7.75	11.75	15.25	15.25	16.75	19.50	18.50	14.00	11.50	11.00	11.50
Canada	8.25	11.50	15.00	15.00	15.00	16.50	16.50	13.75	13.25	12.50	12.50
Japan	5.47	4.50	6.51	6.71	6.95	7.70	8.43	9.02	9.27	9.25	9.15
Australia	11.50	11.00	10.75	11.25	11.25	12.25	12.50	12.50	12.50	12.50	12.50
United Kingdom	8.00	13.50	18.00	18.00	18.00	19.00	18.50	18.50	17.50	17.50	17.50
Belgium	10.00	10.00	15.25	15.50	16.50	18.75	18.75	18.75	17.25	17.00	15.75
France	11.35	10.95	13.65	13.65	14.65	14.65	14.15	14.15	14.15	13.90	13.90
Germany	6.00	5.50	9.75	9.75	9.75	10.50	10.50	11.50	11.50	11.50	11.50
Italy	16.00	15.00	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50	19.50
Netherlands	7.00	12.00	15.00	13.25	14.25	13.25	12.00	12.75	12.00	11.25	11.75
Austria	9.75	8.75	8.50	9.50	9.50	9.50	11.00	11.00	11.00	11.00	11.00
Denmark	12.50	10.00	13.75	13.75	15.75	15.75	15.75	15.75	15.75	15.75	15.75
Finland	8.85	7.87	9.06	9.08	9.77	9.82	9.85	9.84	9.86	n.a.	n.a.
Ireland	8.25	13.75	16.00	16.00	16.00	16.00	18.50	18.50	18.50	17.50	15.50
Norway	8.33	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00	11.00
Spain	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00	9.00
Sweden	10.25	8.50	10.75	11.75	11.75	11.75	11.75	11.75	11.75	11.75	11.75
Switzerland	5.75	5.00	5.00	5.00	5.50	5.50	5.75	5.75	5.75	5.75	5.75
Argentina	152.08	86.75	80.00	72.00	65.00	58.50	60.50	70.50	75.50	74.50	58.50
Brazil	52.05	61.70	57.00	57.00	57.00	57.00	57.00	57.00	57.00	57.00	57.00
Hong Kong	4.75	8.75	14.50	14.50	14.50	16.00	16.00	14.50	12.00	10.00	10.00
Korea	15.00	18.50	18.50	24.50	24.50	24.50	24.50	24.50	23.50	23.50	23.50
Mexico	17.00	17.50	19.00	19.00	19.00	21.39	21.83	22.39	22.47	22.53	22.82
New Zealand	8.50	9.75	11.75	12.00	12.75	12.75	12.75	12.75	12.75	12.75	12.75
Philippines	14.00	14.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00	16.00
Singapore	7.02	7.65	9.50	10.25	10.55	11.28	12.10	11.98	11.40	11.10	10.95
South Africa	12.50	11.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50
Venezuela	9.50	10.25	13.00	13.00	13.00	14.00	17.00	12.00	12.00	12.00	12.00

Domestic government bond yields

long-term issues, at or near end of month

	1977	1978	1979	1980							
	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
United States	7.97	9.00	10.20	11.11	12.60	12.50	10.38	10.24	9.90	10.70	11.46
Canada	8.77	9.68	11.32	12.13	12.91	13.20	12.01	11.39	11.29	12.32	12.42
Japan	6.40	6.40	8.63	8.56	9.17	9.76	9.65	8.75	8.45	8.63	8.77
Australia	9.50	8.90	10.45	10.65	11.50	11.75	11.85	11.85	11.80	11.80	11.85
United Kingdom	10.53	12.75	13.83	13.30	13.89	13.98	13.44	13.30	13.06	12.52	13.27
Belgium	8.76	8.80	11.13	11.42	11.93	12.45	12.02	12.26	11.84	11.77	12.08
France	11.07	9.94	12.59	12.52	14.11	14.44	13.94	13.49	13.34	13.43	13.46
Germany	5.52	6.65	7.91	8.13	8.86	9.72	8.93	8.20	8.00	7.78	7.95
Italy	10.82	10.89	11.28	11.39	11.56	11.63	11.63	11.64	11.80	12.06	12.00
Netherlands	8.11	8.48	9.29	9.41	10.37	11.45	10.59	9.97	9.95	9.66	10.08
Austria	9.00	7.91	8.20	8.20	8.51	8.93	9.52	9.26	9.04	9.21	n.a.
Denmark	16.83	17.27	18.28	18.55	19.71	20.37	20.57	20.27	20.90	19.95	20.71
Finland	10.25	9.19	9.58	9.94	10.13	10.38	10.59	10.46	10.44	10.49	10.52
Ireland	11.30	13.44	16.64	15.95	15.95	15.95	16.20	16.19	15.78	14.64	14.49
Norway	8.37	8.19	10.04	10.10	10.15	10.20	10.26	10.31	10.16	n.a.	10.73
Sweden	9.84	10.09	11.22	10.92	11.24	11.26	11.33	11.31	11.38	11.38	11.46
Switzerland	3.75	3.03	4.20	4.48	5.03	5.09	4.96	4.82	4.72	4.59	4.87
Argentina	181.65	112.18	47.94	42.58	45.02	54.02	59.98	47.21	57.33	81.94	42.24
New Zealand	10.00	10.02	12.98	13.44	13.45	13.57	13.47	13.44	13.49	13.40	n.a.
Philippines	13.40	13.40	13.20	13.40	13.40	13.40	13.40	13.40	13.40	13.40	13.40
South Africa	10.75	9.85	9.44	9.38	9.33	9.32	9.56	9.69	9.85	10.00	10.05
Venezuela	7.24	7.24	7.29	7.38	7.25	7.33	7.40	7.45	7.45	7.45	7.37

Domestic corporate bond yields

long-term issues, at or near end of month

	1977	1978	1979	1980							
	Dec	Dec	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug
United States	8.30	9.25	10.75	11.88	12.88	13.75	10.75	11.20	10.63	11.65	12.50
Canada	9.71	10.34	12.07	12.80	13.35	13.90	12.84	12.29	12.14	13.19	13.35
Japan	6.68	6.94	8.34	8.12	8.12	8.75	9.50	8.68	8.23	8.20	8.24
Australia	11.00	10.25	11.65	11.90	12.60	12.75	13.10	13.25	13.15	13.15	13.25
United Kingdom	11.88	13.53	14.96	14.25	14.55	14.99	14.66	14.39	13.98	13.33	13.90
Belgium	9.85	9.58	11.93	11.82	12.22	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
France	12.09	10.27	12.92	12.91	14.57	14.80	14.37	14.39	14.16	13.93	13.86
Germany	5.92	6.80	8.20	8.10	8.50	9.60	10.00	9.40	8.90	8.40	8.10
Italy	10.71	10.12	10.22	10.22	10.56	11.12	11.85	12.14	14.12	14.19	13.73
Netherlands	7.90	8.62	9.95	9.78	10.54	12.05	10.85	10.43	9.96	9.83	10.33
Norway	8.59	8.37	10.53	10.71	10.75	10.80	10.85	10.91	10.46	n.a.	10.70
Spain	11.58	12.17	11.77	11.34	11.18	11.19	11.45	10.89	10.83	10.90	n.a.
Sweden	9.83	10.03	10.21	10.43	10.78	10.85	11.00	11.07	11.71	11.80	11.90
Switzerland	4.96	4.85	5.53	5.61	5.63	6.06	5.77	5.56	5.64	5.58	5.76
Korea	19.60	24.00	32.50	32.50	31.00	31.00	31.00	31.00	30.50	29.00	28.70
Mexico	17.56	20.37	21.99	23.00	23.55	24.49	26.26	24.70	23.62	n.a.	n.a.
Venezuela	10.39	12.43	14.55	13.63	13.87	14.86	15.94	14.40	12.81	12.82	12.41

Key to data in tables

I. International markets

Definitions

An *international bond* issue is one sold outside the country of the borrower. It may be either a Euro-bond issue or a foreign bond issue.

A *Euro-bond* issue is one underwritten by an international syndicate and sold principally in countries other than the country of the currency in which the issue is denominated.

A *foreign bond* issue is one underwritten by a syndicate composed of members from one country, sold principally in that country, and denominated in the currency of that country.

A *Euro-currency bank credit* is a loan in a currency which is not native to the country in which the bank office making the loan is located.

Data on *new international bond issue volume* include all publicly announced issues with an original maturity of three years or more, whether publicly or privately placed, but exclude those where the investor is a central bank, monetary authority, or government.

Data on *new Euro-currency bank credit volume* include all publicly announced loans with an original maturity of more than one year. A loan is included in the period in which the lending banks make a commitment covering the amount and terms of the loan to the borrower.

Categories of borrower

U.S. companies include both parent companies and their financing affiliates, either domestic or foreign.

Other companies include private companies domiciled outside the United States and their affiliates.

State enterprises include public agencies.

Governments include central and local governments.

Country of borrower

The country of the borrower is the residence of the borrowing entity, except where the entity is a financing vehicle, in which case the residence of the parent company and or guarantor is used.

International bond yields

Yields are calculated to the nearest day of maturity. Interest on bonds with annual coupons is discounted semiannually for comparability in computation of yield.

The yield indices are simple arithmetic averages of end-of-month secondary market yields for groups of selected straight-debt securities. Yield indices for six categories of bonds have been calculated according to borrower and currency. They are based on issues of good-quality, well-known borrowers. Occasionally the individual issues in each category are changed.

The number of issues represented in each of the indices is as follows:

Long-Term, U.S. companies, U.S. dollar — —ten Euro-bond issues.

Long-term, U.S. companies, Swiss franc — four foreign bond issues.

Long-term, European companies, U.S. dollar — ten Euro-bond issues.

Long-term, European companies, German mark — ten Euro-bond issues.

Long-term, governments, U.S. dollar — six Euro-bond issues (governments of Italy, Denmark, and France).

Euro-currency deposit rates

All data are prime banks' bid rates for deposits in London. Offer rates commonly used as a basis for Euro-dollar lending are generally .125% above bid rates.

II. Domestic markets

Day-to-day money rates

Argentina — 7-day interbank money.

Austria — day-to-day interbank rate.

Australia — approximate effective interest rate in the authorized short-term money market.

Belgium — interbank call money.

Brazil — overnight financing of Treasury bills (LTN). From December 1979, rates paid for federal funds.

Canada — chartered banks' day-to-day loans.

Finland — Bank of Finland call money.

France — interbank call money against private paper.

Germany — interbank call money.

Hong Kong — interbank 24-hour call rate.

Ireland — interbank call money.

Italy — interbank 48 hour call money.

Japan — Tokyo interbank call money, overnight lenders rate until December 1974. New series as of January 1975, unconditional lenders rate.

Korea — call money.

Netherlands — open-market call money.

Philippines — interbank call money.

Singapore — interbank overnight money.

South Africa — National Finance Corporation call money.

Spain — day-to-day interbank rate.

Sweden — interbank call money.

Switzerland — call money.

United Kingdom — call money.

United States — effective Federal funds rate.

Euro-dollars — prime banks' bid rate for overnight money.

Treasury bill rates

Argentina — 28-day Treasury bills.

Australia — new issues of 13-week Treasury notes.

Belgium — 3-month Treasury certificates.

Brazil — 91-day Treasury bills (LTN).

Canada — 3-month Treasury bills at tender.

Ireland — 3-month Central Bank Exchequer bills.

Italy — 6-month Treasury bills.

Japan — 60- to 62-day noninterest-bearing discount government bills.

Korea — 3-month Treasury bills sold by Korean Central Bank.

Mexico — 3-month Federal Treasury bills.

Netherlands — 3-month Treasury bills.

New Zealand — 3-month Treasury bills.

Philippines — 91-day Treasury bills at tender.

Singapore — 91-day Treasury bills at tender.

South Africa — 3-month Treasury bills at tender.

Sweden — new issues of 3-month Treasury bills.

United Kingdom — 91-day Treasury bills at tender.

United States — 3-month Treasury bills.

Representative money-market rates

Australia — 3-month prime finance company paper.

Belgium — 4-month Fonds des Rentes certificates.

Canada — 3-month prime finance company paper.

France — 3-month interbank money against private paper.

Germany — 3-month interbank deposits.

Hong Kong — 3-month interbank deposits.

Ireland — 3-month interbank deposits.

Italy — 3-month interbank deposits.

Japan — Tokyo interbank call money, unconditional, lender's rate until December 1974. New series as of January 1975, 3-month repurchase agreements.

Korea — 3-month financial bill.

Netherlands — 3-month municipal loans until December 1976. New series as of January 1977, 3-month interbank deposits.

New Zealand — 90-day commercial bills.

Philippines — 90-day promissory notes.

Singapore — 3-month bank acceptances.

South Africa — 90-day bank acceptances.

Spain — 1- to 2-month interbank deposits.

Switzerland — 3-month interbank deposits.

United Kingdom — 3-month interbank deposits.

United States — 3-month prime industrial paper.

Commercial bank deposit rates

Argentina — nominal 30-day time deposits. Average of bank rates published by the Central Bank.

Austria — 3-month time deposits.

Australia — 3-month certificates of deposit.

Belgium — special maximum rate for 3-month time deposits in large amounts.

Brazil — 6-month negotiable certificates of deposit of investment banks net of taxes.

Canada — 3-month time deposits.

Denmark — time deposits of 3-months' notice.

Finland — time deposits of six-month notice.

France — 3-month time deposits of FF. 1,000,000.

Germany — 3-month time deposits in large amounts.

Hong Kong — 3-month certificates of deposit. Rate set by the Hong Kong Exchange Banks' Association.

Ireland — 3-month time deposits.

Italy — 3-month time deposits of Lit. 100 million or more.

Key to data in tables – continued

Japan — 3-month time deposits.

Korea — 3-month time deposits.

Mexico — 3-month certificates of deposit issued by financieras to corporations for amounts over Ps. 1 million. Higher rates available to individuals.

Netherlands — 3-month time deposits in large amounts.

New Zealand — 6-month transferable certificates of deposit.

Norway — 3-month time deposits. Higher rates may be negotiated for 12-month or more time deposits in large amounts.

Philippines — 3-month time deposits.

Singapore — 3-month time deposits until May 1975, 3-month certificates of deposit thereafter.

South Africa — 3-month time deposits at merchant bank until May 1975. Negotiable certificates of deposit from June 1975.

Spain — maximum legal rate for 3-month deposits.

Sweden — deposits at 6-months' notice.

Switzerland — 3-month time deposits.

United Kingdom — 3-month time deposits.

United States — 3-month negotiable certificates of deposit issued by Morgan Guaranty Trust Company.

Venezuela — 6-month negotiable certificates of deposits for large amounts until December 1978. New series as of January 1979, similar rate for domestic depositors only.

Commercial bank lending rates to prime borrowers

Argentina — average rate on 30-day loans.

Austria — overdraft rate for prime borrowers, including commission.

Australia — approximate overdraft rate for prime borrowers. Rate for prime borrowers usually .25% to .75% below the maximum overdraft rate; rate shown is .5% below.

Belgium — prime overdraft rate.

Brazil — commercial bank legal maximum rate (discount basis) for maturities up to 60 days until August 1977. In addition, compensating balances were required. New series as of September 1977, weighted average investment bank lending rates.

Canada — prime rate.

Denmark — approximate rate for loans and advances to prime borrowers.

Finland — average rates on total commercial bank lending.

France — overdraft rate for prime borrowers, including a commission of .05% per month on highest debit balance during the month.

Germany — approximate effective overdraft rate for prime borrowers.

Hong Kong — prime rate.

Ireland — AA corporate borrowing rate.

Italy — unsecured overdraft rate for prime borrowers.

Japan — average rate on loans and discounts of city banks, computed by the Bank of Japan until December 1974. New series as of January 1975, average contracted interest rate for short-term loans of city banks. In addition, compensating balances may be required.

Korea — prime rate.

Mexico — major bank prime rate, subject to legal maximum. In addition, compensating balances are required.

Netherlands — overdraft rate for prime borrowers, including commission.

New Zealand — overdraft rate for prime borrowers.

Norway — overdraft rate, including a commission of .333% prior to July 1978, .25% thereafter, per quarter on the total line of credit.

Philippines — maximum legal rate, for unsecured loans exclusive of service fee.

Singapore — most common overdraft rate, major banks.

South Africa — unsecured overdraft rate for prime borrowers.

Spain — maximum legal rate for discounting commercial bills plus a commission of 1% per annum. In addition, compensating balances may be required.

Sweden — actual interest rate on 3-month loans to prime industrial borrowers.

Switzerland — unsecured overdraft rate for prime borrowers, excluding commission of .25% per quarter on average or highest outstanding debit balance in quarter.

United Kingdom — unsecured overdraft rate for prime borrowers.

United States — prime rate of Morgan Guaranty Trust Company. In addition, compensating balances are required.

Venezuela — representative rate for prime borrowers until December 1978. New series as of January 1979, similar rate for domestic prime borrowers only.

Domestic government bond yields

Argentina — 7% National Adjustable Bond, third series maturing in 1985, inflation adjusted by the Official Correction Index.

Austria — Austrian National Bank average yield on all outstanding government bonds.

Australia — 20-year government bonds.

Belgium — Belgian National Bank average yield on government bonds maturing in more than five years.

Canada — Bank of Canada average yield on all direct government bonds due or callable in 10 years or more.

Denmark — 5% government bond of 2007 until December 1976. New series as of January 1977, 10% government bonds with maturity of 7 to 8 years.

Finland — rate of interest at issue on central government bonds intended for public subscription, weighted by sales of bonds in the latter half of each month.

France — Institut National de la Statistique et des Etudes Economiques (INSEE) yield on public and semi-public sector bonds.

Germany — Frankfurter Allgemeine Zeitung (FAZ) 7% public authority bond average until September 1978. New series as of October 1978, FAZ 10-year public authority bond average.

Ireland — 15-year government bonds.

Italy — average of yields on six outstanding bonds of public-sector entities, new series as of January 1977.

Japan — average yield on outstanding maturities of 6.5% national government bonds until December 1974. New series as of January 1975, secondary market yield for the 6.1% due 1988 national government bond.

Netherlands — Central Bureau of Statistics (CBS) average yield on three latest 7% to 7.75% government bonds.

New Zealand — average yield on government bonds maturing after 10 years.

Norway — 5% government bond of 1996.

Philippines — Central Bank 5-year Certificate of Indebtedness, regular issue.

South Africa — 25-year government bonds.

Sweden — 15-year government bonds.

Switzerland — Swiss Confederation bond average.

United Kingdom — F.T. (Financial Times) Actuaries 20-year government stock until December 1975. New series as of January 1976, F.T. Actuaries 25-year government stock.

United States — Morgan Guaranty 20-year U.S. Government Bond Index.

Venezuela — Banco Central average yield on public-sector bond issues.

Domestic corporate bond yields

Australia — long-term secured debentures, indicated by Australian United Corporation.

Belgium — Belgian National Bank average yield on private corporate bonds maturing in more than five years.

Canada — McLeod, Young, Weir Co. Ltd., average yield on ten industrial bonds.

France — INSEE tax-adjusted average yield on outstanding private corporate bonds.

Germany — FAZ 6% industrial bond average until September 1978 New series as of October 1978, Bundesbank average yield on industrial bonds

Italy — average of yields of four outstanding bonds of leading Italian industrial companies; new series as of January 1977.

Japan — average of yields on outstanding Nippon Telegraph & Telephone interest-bearing yen debentures until December 1974. New series as of January 1975, secondary market yield for NTT bond maturing April 1987.

Korea — average of yields on 3-year corporate bonds guaranteed by local banks.

Mexico — 9% Teléfonos de Mexico bond, series AA, of 1990 until December 1976. Average of yields of six outstanding Telefonos de Mexico bonds from January 1977.

Netherlands — CBS average yield on three 6% to 6.5% corporate bonds.

Norway — 5.75% Dalen Portland-Cement bond of 1969-1984.

Spain — average yield for a selected group of electricity companies.

Sweden — Central Satistical Bureau average yield on industrial bonds.

Switzerland — average yield on outstanding bonds of four leading Swiss companies.

United Kingdom — F.T. (Financial Times) Actuaries 20-year debentures and loans.

United States — Salomon Brothers index of new issue yields for Aa industrial bonds with five-year call protection.

Venezuela — average of yields on 15-year bond issues of Electricidad de Caracas.

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